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Director

PROPOSED STATE PLAN FOR IMPLEMENTATION AND ENFORCEMENT OF EMISSION GUIDELINES AND COMPLIANCE TIMES FOR EXISTING SEWAGE SLUDGE INCINERATION UNITS

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PROPOSED STATE PLAN FOR IMPLEMENTATION AND ENFORCEMENT OF EMISSION GUIDELINES AND COMPLIANCE TIMES FOR EXISTING SEWAGE SLUDGE INCINERATION UNITS

Introduction

The Clean Air Act (CAA) Amendments of 1990 mandate that States submit to the United States Environmental Protection Agency (USEPA) a State Plan in accordance with the requirements of Sections 111(d) and 129 of the CAA for implementation and enforcement of "Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units," (Guidelines) 40 Code of Federal Regulations (C.F.R.) part 60, subpart MMMM. The Guidelines were promulgated by the USEPA on March 21, 2011. The State Plan must meet the requirements of 40 C.F.R. §60.5015. As part of the State Plan, the Michigan Department of Environmental Quality (MDEQ) promulgated R 336.1972, "Emission Standards for Existing Sewage Sludge Incineration Units," and R 336.1902 "Miscellaneous Provisions," on May 20, 2015, which state the requirements for existing sewage sludge incineration (SSI) units and incorporates by reference portions of the relevant Guidelines.

This State Plan addresses the nine required elements specified in 40 C.F.R. §60.5015 as follows:

1. An inventory of affected SSI units in the State, including units that have ceased operation but have not been dismantled (included in State Plan section on Inventory and Compliance Schedule).
2. An inventory of emissions from affected SSI units in the State (included in State Plan section on Emissions Inventory).
3. Compliance schedules for affected SSI units (included in State Plan section on Inventory and Compliance Schedule and Attachment B).
4. Emission limitations, emission standards, operator training and qualification requirements, and operating limits for affected SSI units which are at least as protective as those in the Guidelines (Attachment A).
5. Performance testing, monitoring, recordkeeping, and reporting requirements (Attachment A).
6. Certification that a public hearing on the State Plan was held, a list of witnesses and their organizational affiliations, and a brief written summary of each presentation or written submission (will be added after public comment and hearing).
7. Provision for State progress reports to USEPA on the implementation of the State Plan (included in State Plan section on State Progress Reports to USEPA).
8. Identification of enforceable State mechanisms for implementing the Guidelines (included in State Plan section on Enforceable State Mechanism and Attachment A).
9. A demonstration of the States' legal authority to carry out the Section 111(d) and the Section 129 State Plan (included in State Plan section on Enforceable State Mechanism and Attachment A).

Inventory of SSI Units and Compliance Dates

The inventory included in Table 1 includes all SSI units in the State affected by the State Plan. This includes units which have ceased operation (or have not been operating) and are not totally dismantled and sources subject to 40 C.F.R. part 60, subpart MMMM. Should another source be discovered subsequent to the date of this plan, the MDEQ will provide notice to USEPA and there will be no need to reopen the State Plan to include that source.

There are three options to comply with the State Plan: 1) Submittal of a final closure notification with date of closure on or before March 21, 2016 to the MDEQ; 2) Submittal of a final plan by March 21, 2015 to come into full compliance by March 21, 2016; or 3) Submittal of a notification to the MDEQ of an exemption from R 336.1972 and the State Plan by March 21, 2015.

The schedules for compliance with the State Plan for affected sources are included in Table 1 and correspondence pertaining to compliance is included in Attachment B. By March 21, 2015, all owners or operators of SSI units in the State submitted to the MDEQ a final closure notification or a final plan to come into full compliance by March 21, 2016. The MDEQ has reviewed and approved all submitted final plans included in Attachment B. The compliance schedules listed in the final plans will be incorporated into each Renewable Operating Permit (Title V) for the three remaining SSI affected sources and will become enforceable upon permit issuance.

In addition, the owners or operators of SSI units scheduled to remain operational either have a Title V permit or have submitted an application for a Title V permit to the MDEQ.

Table 1. Inventory of Sewage Sludge Incineration Units and Compliance Schedules

SRN	NAME	ADDRESS	COMPLIANCE SCHEDULE
B6307	City of Battle Creek Wastewater Treatment Plant	2000 River Rd. W., Battle Creek, MI 49037	Final closure notification to decommission units by 3/21/2016
B6237	Ypsilanti Community Utilities Authority	2777 State St., Ypsilanti, MI 48198	Final compliance by 3/21/2016
B4150	East Lansing Wastewater Treatment Plant	1700 Trowbridge Rd., East Lansing, MI 48823	Decommissioned on 10/17/2002
B2103	Detroit Wastewater Treatment Plant	9300 W. Jefferson Ave., Detroit, MI 48209	Final compliance by 3/21/2016
B1950	Pontiac Wastewater Treatment Plant	155 N. Opdyke Rd., Pontiac, MI 48342	Final closure notification of shut down on 6/16/2011 and decommissioned on 4/30/2015
B1792	Warren Waste Water Treatment Plant	32360 Warkop Ave., Warren, MI 48093	Final compliance by 3/21/2016
B1598	Flint Water Pollution Control Facility	4652 Beecher Rd., Flint, MI 48532	Final closure notification to shut down units by 3/21/2016

Emissions Inventories

The estimated emissions for SSI units affected by the State Plan and not yet completely dismantled are included in Table 2. These values were derived using "Final: Revised Estimation of Baseline Emissions from Existing Sewage Sludge Incineration Units Attachments," available at http://www.epa.gov/ttn/atw/129/ssi/ssipg.html.

Table 2. Sewage Sludge Incineration Unit Emissions Data
(actual baseline emissions (based on average feed rates))

	Cd, mg/dscm	CO, ppmvd	HCl, ppmvd	Pb, mg/dscm	Hg, mg/dscm	NOx, ppmvd	PM, mg/dscm	SO2, ppmvd	Dioxin/Furan Toxic Equivalency Quotient, ng/dscm
Battle Creek Units 1-2	0.0443	864.78	0.6546	0.1141	0.1028	133.28	34.14	9.1913	0.047
Detroit Units 1-6	0.0443	864.78	0.6546	0.1141	0.1028	133.28	34.14	9.1913	0.047
Detroit Unit 7-14	0.4428	864.78	0.6546	1.1414	0.1028	133.28	68.27	9.1913	0.047
Flint Units 1-4	0.4428	864.78	0.6546	1.1414	0.1028	133.28	68.27	9.1913	0.047
Warren	0.4428	864.78	0.6546	1.1414	0.1028	133.28	68.27	9.1913	0.047
Ypsilanti	0.0005	2.64	0.2824	0.0062	0.0006	29.76	2.87	2.5662	0.003

Enforceable State Mechanism and Requirements at Least as Protective as the Federal Emission Guidelines

Under the CAA Section 129(f)(3), it is unlawful for any source to operate in violation of any standard promulgated under 40 C.F.R. part 60, subpart MMMM. In accordance with R 336.1972, sources must come into compliance with 40 C.F.R. part 60, subpart MMMM by March 21, 2016, the latest date available under federal law. The consequences for non-compliance with R 336.1972, or any MDEQ emissions standard, range from civil fines to injunctive relief.

Included in Attachment A is the recently adopted R 336.1972, "Emission standards for existing sewage sludge incineration units," and R 336.1902, "Miscellaneous Provisions," along with certification of adoption of the rules by the Michigan Secretary of State. These rules satisfy the State Plan requirement for the following:

1. Emission limits, emission standards, operator training and qualification requirements, and operating limits for affected SSI units that are at least as protective as the emission guidelines contained in 40 C.F.R. part 60, subpart MMMM.
2. Performance testing, recordkeeping, and reporting requirements that are at least as protective as those in 40 C.F.R. part 60, subpart MMMM.

3. Identification of enforceable state mechanisms for implementing the emission guidelines of 40 C.F.R. part 60, subpart MMMM.

Also included in Attachment A is a certification by the Michigan Department of Attorney General that the MDEQ has the authority to adopt by reference the federal emission guidelines, such as those in 40 C.F.R. part 60, subpart MMMM.

As part of the State Plan requirements, 40 C.F.R. §60.26 requires a demonstration of authority by States. The MDEQ draws its authority to satisfy these requirements from the Natural Resources and Environmental Protection Act, Act 451 of 1994, Part 55, Air Pollution Control, and the Air Quality Division Rules, Part 9, Emission Limitation and Prohibitions - Miscellaneous, included in Attachment A. The requirements of 40 C.F.R. §60.26 are demonstrated as follows:

1. Authority to adopt emission standards and compliance schedules applicable to designated facilities is found in Michigan Complied Law (MCL) 324.5512 and R 336.1972.

   MCL 324.5512 Rules
   "(1) … the department shall promulgate rules for the purposes of doing all of the following:
   (a) Controlling or prohibiting air pollution.
   (b) Complying with the clean air act….
   (g) Establishing suitable emission standards consistent with federal air quality standards…"

   R 336.1972 Emission standards for existing sewage sludge incineration units.
   "…(3)By March 21, 2016, each SSI unit shall comply with the following provisions of "Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units," 40 C.F.R. Part 60, Subpart MMMM, adopted by reference in R 336.1902…"

2. Authority to enforce applicable laws, regulations, standards, and compliance schedules, and seek injunctive relief is found in MCL 324.5530.

   MCL 324.5530 Commencement of civil action by attorney general; relief; costs; jurisdiction; defenses; fines.
   "(1) The attorney general may commence a civil action against a person for appropriate relief, including injunctive relief, and a civil fine as provided in subsection (2) for any of the following:
   (a) Violating this part or a rule promulgated under this part….
   (c) Failure to comply with the terms of a permit or an order issued under this part…."

3. Authority to obtain information necessary to determine whether designated facilities are in compliance with applicable laws, regulations, standards, and compliance schedules, including authority to require recordkeeping and to make inspections and conduct tests of designated facilities is found in MCL 324.5526.

MCL 324.5526 Investigation; inspection; furnishing duplicate of analytical report; powers of department or authorized representative; entry or access to records refused; powers of attorney general; "authorized representative" defined.
"(1) The department may…enter and inspect any property at reasonable times for the purpose of investigating either an actual or suspected source of air pollution or ascertaining compliance or noncompliance with this part, rules promulgated under this part, the clean air act, a permit issued under this part, or any determination or order issued under this part.… In implementing this subsection, the department or its authorized representative may do any of the following:
(a) Have access to and copy…any records that are required to be maintained pursuant to this part, rules promulgated under this part, the clean air act, a permit issued under this part, or any determination or order issued under this part.
(b) Inspect at reasonable times any facility, equipment, including monitoring and air pollution control equipment, practices, or operations regulated or required under this part, rules promulgated under this part, the clean air act, a permit issued under this part, or any determination or order issued under this part.
(c) Sample or monitor at reasonable times substances or parameters for the purpose of determining compliance with this part, rules promulgated under this part, the clean air act, a permit issued under this part or any determination or order issued under this part.…"

4. Authority to require owners or operators of designated facilities to install, maintain, and use emission monitoring devices and to make periodic reports to the State on the nature and amounts of emissions from such facilities; also authority for the State to make such data available to the public as reported and as correlated with applicable emission standards is found in R 336.1972 and MCL 324.5516.

   R 336.1972 Emissions standards for existing sewage sludge incineration units.
   "…(2) the owner or operator of a SSI unit…shall submit an application for a renewable operating permit…"

   R 336.1972 Emissions standards for existing sewage sludge incineration units.
   "…(3) By March 21, 2016, each SSI unit shall comply with the following provisions of "Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units," 40 C.F.R. part 60, Subpart MMMM, adopted by reference in R 336.1902:…
   (e) "Continuous Compliance Requirements," 40 C.F.R. §§60.5205 to 60.5215.
   (f) "Performance Testing, Monitoring, and Calibration Requirements," 40 C.F.R. §§60.5220 to 60.5225.

(g) "Recordkeeping and Reporting," 40 C.F.R. §§60.5230 to 60.5235.
(h) "Title V Operating Permits," 40 C.F.R. §§60.5240 to 60.5245...."

MCL 324.5516 Public hearing; information available to the public; use of confidential information.
"...(2) A copy of each permit, permit application, order, compliance plan and schedule of compliance, emissions or compliance monitoring report, sample analysis, compliance certification, or other report or information required under this part, rules promulgated under this part, or permits or orders issued under this part shall be available to the public to the extent provided by the freedom of information act, Act No. 442 of the Public Acts of 1976, being sections 15.231 to 15.246 of the Michigan Complied Laws....
(3) ... Data on the amount and nature of air contaminants emitted from a source shall be available to the public."

Provision for State Progress Reports to USEPA

The MDEQ agrees to inform the USEPA of the status of affected SSI sources with the March 21, 2016 compliance deadline by April 30, 2016. Any compliance delay or follow up to non-compliance will be identified in routine scheduled discussions between MDEQ and USEPA Region 5 enforcement personnel.

ATTACHMENT A

DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

PART 9. EMISSION LIMITATIONS AND PROHIBITIONS – MISCELLANEOUS

(By authority conferred on the director of the department of environmental quality by sections 5503 and 5512 of 1994 PA 451, MCL 324.5503 and MCL 324.5512)

R 336.1901 Air contaminant or water vapor; prohibition.

Rule 901. Notwithstanding the provisions of any other rule, a person shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:

(a) Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.

(b) Unreasonable interference with the comfortable enjoyment of life and property.

History: 1980 AACS; 2002 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1902 Adoption of standards by reference.

Rule 902. (1) The following standards are adopted by reference in these rules. Copies are available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, Lansing, Michigan 48909-7760, at a cost as of the time of adoption of these rules (AQD price). Copies may also be obtained from the Superintendent of Documents, U.S. Government Printing Office, 732 North Capitol Street, NW, Washington, DC 20401, or by accessing their online bookstore at http://bookstore.gpo.gov at a cost as of the time of adoption of these rules (GPO price). The standards can also be viewed and/or printed free of charge at http://ecfr.gpoaccess.gov.

(a) "National Primary and Secondary Ambient Air Quality Standards," 40 C.F.R. Part 50 (2013), AQD price $61.00/$51.00 GPO price for Part 50 through Part 51.

(b) The following sections of "Requirements for Preparation, Adoption, and Submittal of Implementation Plans," 40 C.F.R. Part 51 (2013), AQD price $61.00/$51.00 GPO price for Part 50 through Part 51:

(i) "Definitions," 40 C.F.R. §51.100.

(ii) "Legally enforceable procedures," 40 C.F.R. §51.160.

(iii) "Permit requirements," 40 C.F.R. §51.165.

(iv) "Prevention of significant deterioration of air quality," 40 C.F.R. §51.166.

(v) "Definitions," 40 C.F.R. §51.301.

(vi) "Sources That Would Locate in a Designated Nonattainment Area," Appendix S.

(vii) "Recommended Test Methods for State Implementation Plans," Appendix M.

(viii) "Guideline on Air Quality Models," Appendix W.

(ix) "Guidelines for BART Determinations under the Regional Haze Rule," Appendix Y.

(c) "Prevention of Significant Deterioration of Air Quality," 40 C.F.R. §52.21 (2013); AQD price $74.00/$64.00 GPO price for Part 52 (52.01 through 52.1018).

(d) "Quality Assurance Requirements for Prevention of Significant Deterioration Air Monitoring," 40 C.F.R. §58, Appendix B (2013); AQD price $46.00/$36.00 GPO price for Part 53 through Part 59.

(e) "Standards of Performance for New Stationary Sources," 40 C.F.R. Part 60, except 40 C.F.R. Part 60, Subpart AAA, "Standards of Performance for New Residential Wood Heaters" (2013); AQD price $74.00/$64.00 GPO price for Part 60 (60.1 to end).

(f) "Appendices," 40 C.F.R. Part 60 (2013); AQD price $73.00/$63.00 GPO price for Part 60 Appendices.

(g) "National Emission Standards for Hazardous Air Pollutants," 40 C.F.R. Part 61 (2013); AQD price $61.00/$51.00 GPO price for Part 61 through Part 62.

(h) "National Emission Standards for Hazardous Air Pollutants for Source Categories," 40 C.F.R. Part 63, Subpart A to Z (2014); AQD price $74.00/$64.00 GPO price.

(i) "National Emission Standards for Hazardous Air Pollutants for Source Categories (Continued)," 40 C.F.R. Part 63, Subpart AA to DDD (2014); AQD price $63.00/$53.00 GPO price.

(j) "National Emission Standards for Hazardous Air Pollutants for Source Categories (Continued)," 40 C.F.R. Part 63, Subpart EEE to PPP (2014); AQD price $66.00/$56.00 GPO price.

(k) "National Emission Standards for Hazardous Air Pollutants for Source Categories (Continued)," 40 C.F.R. Part 63, Subpart QQQ to YYYY (2014); AQD price $47.00/$37.00 GPO price.

(l) "National Emission Standards for Hazardous Air Pollutants for Source Categories (Continued)," 40 C.F.R. Part 63, Subpart ZZZZ to MMMMM (2014); AQD price $50/$40 GPO price.

(m) "National Emission Standards for Hazardous Air Pollutants for Source Categories (Continued)," 40 C.F.R. Part 63, Subpart NNNNN to end (2014); AQD price $50.00/$40.00 GPO price.

(n) "Compliance Assurance Monitoring," 40 C.F.R. Part 64 (2013); AQD price $44.00/$34.00 GPO price for Part 64 through Part 71.

(o) The following sections of "State Operating Permit Programs," Part 70 (2013); AQD price $44.00/$34.00 GPO price for Part 64 through Part 71:

(i) "Applicability," 40 C.F.R. §70.3.

(ii) "Re-openings for cause by EPA," 40 C.F.R. §70.7(g).

(iii) "Transmission of information to the Administrator," 40 C.F.R. §70.8(a)(1) and (2).

(iv) "EPA objection," 40 C.F.R. §70.8(c).

(v) "Public petitions to the Administrator," 40 C.F.R. §70.8(d).

(p) "Permit Regulations," 40 C.F.R. Part 72 (2013); AQD price $78.00/$68.00 GPO price for Part 72 through Part 80.

(q) "Sulfur Dioxide Opt-Ins," 40 C.F.R. Part 74 (2013); AQD price $78.00/$68.00 GPO price for Part 72 through Part 80.

(r) "Continuous Emission Monitoring," 40 C.F.R. Part 75 (2013); AQD price $78.00/$68.00 GPO price for Part 72 through Part 80.

(s) "Acid Rain Nitrogen Oxides Emission Reduction Program," 40 C.F.R. Part 76 (2013); AQD price $78.00/$68.00 GPO price for Part 72 through Part 80.

(t) "Federal NOx Budget Trading Program and CAIR NOx and SO2 Trading Programs," 40 C.F.R. Part 97 (2013); AQD price $76.00/$66.00 GPO price for Part 96 through Part 99.

(u) "Global Warming Potentials," 40 C.F.R. Part 98, Subpart A, Table A-1 (2013); AQD Price $76.00/$66.00 GPO price for Part 96 to Part 99.

(v) "Federal Power Act," 16 U.S.C. §§796 (17)(C) and (18)(B) (2012); AQD Price $142.00/$132.00 GPO price for Section 344 through Section 856.

(w) "Solid Waste Disposal Act, Section 3005," 42 U.S.C. §6925 (2012); AQD Price $68.50/$58.50 GPO price for Sections 6201 to end.

(2) The following United States Environmental Protection Agency (U.S. EPA) documents are adopted by reference in these rules. A copy is available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, Lansing, MI 48909-7760, at a cost as of the time of adoption of these rules of $20.00 each. A copy may also be obtained from the U.S. Environmental Protection Agency, Office of the Science Advisor, 1200 Pennsylvania Avenue, NW, Washington, DC 20460 or on the U.S. EPA website, www.epa.gov, free of charge as of the time of adoption of these rules.

(a) "Advances in Inhalation Gas Dosimetry for Derivation of a Reference Concentration (RfC) and Use in Risk Assessment," EPA/600/R-12/044, September 2012.

(b) "Guidelines for Carcinogen Risk Assessment, and Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens," 2005.

(c) "Protocol for Determining the Daily Volatile Compound Emission Rate of Automobile and Light-duty Truck Topcoat Operations," EPA-450/3-88-018, December 1988.

(d) "Benchmark Dose Technical Guidance," EPA/100/R-12/001, June 2012.

(e) "Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products," EPA-450/2-78-029, December 1978.

(f) "Alternative Control Techniques Document: NOx Emissions from Cement Manufacturing," EPA-453/R-94-004, 1994.

(g) "Compilation of Air Pollution Emission Factors. Volume 1, Stationary Point and Air Sources," EPA-450/AP-425-ED, January 1995.

(3) The following Federal Register documents are adopted by reference in these rules. A copy is available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, Lansing, MI 48909-7760, at a cost as of the time of adoption of these rules of $10.00:

(a) U.S. EPA Emissions Trading Policy statement, 51 F.R. 43814, December 4, 1986.

(b) U.S. EPA Recommended Policy on Control of Volatile Organic Compounds, 42 FR 35314, July 8, 1977.

(4) The following standards are adopted by reference in these rules. Copies are available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, Lansing, Michigan 48909-7760, at the cost as of the time of adoption of these rules (AQD price). Copies may also be obtained from ASTM International, P.O. Box C700, West Conshohocken, Pennsylvania 19428-2959 or on the ASTM website, www.astm.org, at a cost as of the time of adoption of these rules (ASTM price):

(a) Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure, ASTM method D86, 2012; AQD price $60.00/$50.00 ASTM price.

(b) Standard Test Method for Pour Point of Petroleum Products, ASTM D97, 2012; AQD price $52.00/$42.00 ASTM price.

(c) Standard Test Method for Vapor Pressure of Petroleum Products, ASTM D323, 2008; AQD price $52.00/$42.00 ASTM price.

(d) Standard Specification for Fuel Oils, ASTM D396, 2013; AQD price $52.00/$42.00 ASTM price.

(e) Standard Test Method for Distillation of Cutback Asphaltic (Bituminous) Products, ASTM D402, 2008; AQD price $52.00/$42.00 ASTM price.

(f) Standard Specification for Aviation Gasolines, ASTM D910, 2013; AQD price $52.00/$42.00 ASTM price.

(g) Standard Specification for Diesel Fuel Oils, ASTM D975, 2014; AQD price $70.00/$60.00 ASTM price.

(h) Standard Specification for Aviation Turbine Fuels, ASTM D1655, 2013; AQD price $58.00/$48.00 ASTM price.

(i) Standard Specification for Gas Turbine Fuel Oils, ASTM D2880, 2013; AQD price $49.00/$39.00 ASTM price.

(j) Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentration in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, ASTM D6522, 2011; AQD price $52.00/$42.00 ASTM price.

(k) Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, ASTM D6751, 2012; AQD price $52.00/$42.00 ASTM price.

(l) Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources, ASTM D6784, 2008; AQD price $58.00/$48.00 ASTM price.

(m) Standard Guide for Packaging and Shipping Environmental Sample for Laboratory Analysis, ASTM D6911, 2010; AQD price $52.00/$42.00 ASTM price.

(n) Standard Test Method for Distillation of Emulsified Asphalt, ASTM D6997, 2012; AQD price $47.00/$37.00 ASTM price.

(o) Standard Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20), ASTM D7467, 2013; AQD price $58.00/$48.00 ASTM price.

(p) Standard Practices for General Techniques of Infrared Quantitative Analysis, ASTM E168, 2006; AQD price $58.00/$48.00 ASTM price.

(q) Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis, ASTM E169, 2009; AQD price $58.00/$48.00 ASTM price.

(r) Standard Practice for Packed Column Gas Chromatography, ASTM E260, 2011; AQD price $58.00/$48.00 ASTM price.

(5) The following standards are adopted by reference in these rules. Copies are available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, Lansing, Michigan 48909-7760, at the cost as of the time of adoption of these rules (AQD price). Copies may also be obtained from the American Association of State Highway and Transportation Officials, AASHTO Publication Order Department, P.O. Box 933538, Atlanta, Georgia, 31193-3538, at a cost as of the time of adoption of these rules (AASHTO price):

(a) Standard Method of Test for Testing Emulsified Asphalts, AASHTO T59, 2013; AQD price $86.00/$76.00 AASHTO price.

(b) Standard Method of Test for Cutback Asphalt Products, AASHTO T78, 2014; AQD price $70.00/$60.00 AASHTO price.

(6) "2014 TLVs and BEIs. Threshold Limit Values for Chemical Substances and Physical Agents, and Biological Exposure Indices," is adopted by reference in these rules. A copy is available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, Lansing, MI 48909-7760, at a cost as of the time of adoption of these rules of $69.95. A copy may also be obtained from the American Conference of Governmental Industrial Hygienists, 1330 Kemper Meadow Drive, Cincinnati, Ohio 45240, or on the American Conference of Governmental Industrial website, www.acgih.org, at a cost as of the time of adoption of these rules of $49.95.

(7) "NIOSH Pocket Guide to Chemical Hazards," 2010, is adopted by reference in these rules. A copy on CD-ROM is available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, Lansing, MI 48909-7760, for $20.00 as of the time of adoption of these rules. A copy on CD-ROM may also be obtained from the Centers for Disease Control website, www.cdc.gov/niosh/npg/, for free as of the time of adoption of these rules.

(8) "American Petroleum Institute Manual of Petroleum Measurement Standards C19 S2," is adopted by reference in these rules. A copy is available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, Lansing, MI 48909-7760, at a cost as of the time of adoption of these rules of $139.00. A copy may also be obtained from American Petroleum Institute, Techstreet, 3916 Ranchero Drive, Ann Arbor, MI 48108-2775, or at the American Petroleum Institute website at http://www.techstreet.com/api/products/2409, at a cost as of the time of adoption of these rules of $129.00.

(9) "OTC Model Rule for Consumer Products," 2009 is adopted by reference in these rules. A copy is available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, Lansing, MI 48909-7760, at a cost as of the time of adoption of these rules of $10.00. A copy may also be obtained from the Ozone Transport Commission website, www.otcair.org, for free as of the time of adoption of these rules.

History: 2008 AACS; 2013 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1906 Diluting and concealing emissions.

Rule 906. Unless prior written approval is obtained from the department, a person shall not build, erect, install, or use any article, machine, equipment, or other contrivance if the sole purpose of the article, machine, equipment, or other contrivance is to dilute or conceal an emission without resulting in a reduction in the total release of air contaminants into the atmosphere. This rule does not apply to the control of odors.

History: 1980 AACS; 2002 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1910 Air-cleaning devices.

Rule 910. An air-cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with these rules and existing law.

History: 1980 AACS.

R 336.1911 Malfunction abatement plans.

Rule 911. (1) Upon request of the department, a person responsible for the operation of a source of an air contaminant shall prepare a malfunction abatement plan to prevent, detect, and correct malfunctions or equipment failures resulting in emissions exceeding any applicable emission limitation.

(2) A malfunction abatement plan required by subrule (1) of this rule shall be in writing and shall, at a minimum, specify all of the following:

(a) A complete preventative maintenance program, including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

(b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

(c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

(3) A malfunction abatement plan required by subrule (1) of this rule shall be submitted to the department and shall be subject to review and approval by the department. If, in the opinion of the department, the plan does not adequately carry out the objectives as set forth in subrules (1) and (2) of this rule, then the department may disapprove the plan, state its reasons for disapproval, and order the preparation of an amended plan within the time period specified in the order. If, within the time period specified in the order, an amended plan is submitted which, in the opinion of the department, fails to meet the objective, then the department, on its own initiative, may amend the plan to cause it to meet the objective.

(4) Within 180 days after the department approves a malfunction abatement plan, a person responsible for the preparation of a malfunction abatement plan shall implement the malfunction abatement plan required by subrule (1) of this rule.

History: 1980 AACS; 2002 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1912 Abnormal conditions, start-up, shutdown, and malfunction of ~~a~~ source, process, or process equipment, operating, notification, and reporting requirements.

Rule 912. (1) The owner or operator of a source, process, or process equipment shall, to the extent reasonably possible, operate a source, process, or process equipment in a manner consistent with good air pollution control practices for minimizing emissions during periods of abnormal conditions, start-up, shutdown, and malfunctions. A source, process,

or process equipment that complies with all applicable emission standards and limitations during periods of abnormal conditions, start-up, shutdown, and malfunction shall be presumed to have been operated in a manner consistent with good air pollution control practices for minimizing emissions.

(2) The owner or operator of a source, process, or process equipment shall provide notice of an abnormal condition, start-up, shutdown, or a malfunction that results in emissions of a hazardous air pollutant which continue for more than 1 hour in excess of any applicable standard or limitation established by the clean air act or the emissions of a toxic air contaminant which continue for more than 1 hour in excess of an emission standard established by a rule promulgated under the air pollution act or an emission limitation specified in a permit issued or order entered under the air pollution act.

(3) The owner or operator of a source, process, or process equipment shall provide notice and a written report of an abnormal condition, start-up, shutdown, or a malfunction that results in emissions of any air contaminant continuing for more than 2 hours in excess of a standard or limitation established by any applicable requirement.

(4) The notices required by this rule shall be provided to the department as soon as reasonably possible, but not later than 2 business days after the start-up or shutdown or after discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication.

(5) The written reports required under this rule shall be submitted within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the following information:

(a) The time and date, the probable causes or reasons for, and the duration of the abnormal conditions, start-up, shutdown, or malfunction.

(b) An identification of the source, process, or process equipment that experienced abnormal conditions, was started up or shut down, or which malfunctioned and all other affected process or process equipment that have emissions in excess of an applicable requirement, including a description of the type and, where known or where it is reasonably possible to estimate, the quantity or magnitude of emissions in excess of applicable requirements.

(c) Information describing the measures taken and air pollution control practices followed to minimize emissions.

(d) For abnormal conditions and malfunctions, the report shall also include a summary of the actions taken to correct and to prevent a reoccurrence of the abnormal conditions or malfunction and the time taken to correct the malfunction.

(6) Actions taken to correct and to prevent a reoccurrence of an abnormal condition or a malfunction shall become a part of any preventative maintenance and malfunction abatement plan required by R 336.1911.

(7) The truth, accuracy, and completeness of the written reports required under this rule for a stationary source subject to the requirements of R 336.1210 shall be certified by a responsible official in a manner consistent with the clean air act.

History: 1980 AACS; 1995 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1913 Rescinded.

History: 1995 AACS; 2001 AACS.

R 336.1914 Rescinded.

History: 1995 AACS; 2001 AACS.

R 336.1915 Enforcement discretion in instances of excess emissions resulting from malfunction, start-up, or shutdown.

Rule 915. (1) In determining whether the department will pursue enforcement against a person, the department shall consider evidence that the emission violations resulted from a malfunction, start-up, or shutdown.

(2) If the department determines that the emission violations resulted from a malfunction, start-up, or shutdown, then the department may use enforcement discretion when resolving the emission violations based upon subrules (3) and (4) of this rule, as applicable.

(3) A person may submit evidence to the department for its consideration in determining that the emission violations resulted from a malfunction. The evidence shall demonstrate all of the following, as applicable:

(a) The excess emissions were a result of a sudden and unavoidable breakdown of process or control equipment, beyond the reasonable control of the person.

(b) The air pollution control equipment, process equipment, and processes were maintained and operated in a manner consistent with good practice for minimizing emissions, to the maximum extent practicable.

(c) The excess emissions caused by a bypass (an intentional diversion of control equipment) were unavoidable to prevent loss of life, personal injury, or severe property damage.

(d) Repairs were made in an expeditious fashion when the person knew or should have known that applicable emission limitations were being exceeded. To the extent practicable, off-shift labor and overtime shall have been utilized to ensure that the repairs were made expeditiously.

(e) The amount and duration of excess emissions, including any bypass, were minimized to the maximum extent practicable during periods of the emissions.

(f) All reasonably possible steps were taken to minimize the impact of the excess emissions on ambient air quality.

(g) The excess emissions resulting from the malfunction were not part of a recurring pattern indicative of inadequate design, operation, or maintenance.

(h) The malfunction was an infrequent event and was not reasonably preventable.

(i) All emission monitoring systems were kept in operation if at all possible.

(j) The person responsible for operating the source of air contaminants has a malfunction abatement plan, consistent with the requirements set forth in R 336.1911(2) and with both of the following provisions:

(i) Any malfunction abatement plan developed in accordance with R 336.1911(2) shall be maintained onsite and available for inspection, upon request, by the department for the life of the emission unit or units. The department may require that the person responsible for the malfunction abatement plan make revisions to the plan. The person shall revise the malfunction abatement plan within 45 days after a request by the department. The revised malfunction abatement plan shall be developed in accordance with R 336.1911(2).

(ii) If the malfunction abatement plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, then the person shall revise the malfunction abatement plan within 45 days after the event occurs. The revised malfunction abatement plan shall be developed in accordance with R 336.1911(2).

(k) The excess emissions presenting an imminent threat to human health, safety, or the environment were reported to the department as soon as possible. Unless otherwise specified in the facility's permit, other excess emissions were reported as provided in R 336.1912. If requested by the department, a person shall submit a full written report that includes the known causes, the corrective actions taken, and the preventive measures to be taken to minimize or eliminate the chance of recurrence.

(l) The actions during the period of excess emissions were documented by contemporaneous operating logs or other relevant evidence as provided by R 336.1912.

(m) Any information submitted to the department under this subrule shall be properly certified in accordance with the provisions of R 336.1912.

(4) A person may submit evidence to the department for its consideration in determining that the emission violations resulted from a start-up or shutdown. The evidence shall be based upon subrules (3)(b), (c), (e), (f), (i), (k), (l), and (m) of this rule; subdivisions (a), (b), (c) of this subrule; and R 336.1912, as applicable.

(a) The periods of excess emissions that occurred during start-up or shutdown were short and infrequent and could not have been prevented through careful planning and design.

(b) The excess emissions that occurred during start-up or shutdown were not part of a recurring pattern indicative of inadequate design, operation, or maintenance.

(c) The person responsible for operating the source of air contaminants has a preventative maintenance plan, consistent with the requirements set forth in R 336.1911(2)(a).

(5) For an emission unit or units subject to standards and limitations promulgated pursuant to section 111 or 112 of the clean air act, the start-up, shutdown, or malfunction provisions of the applicable requirements within section 111 or 112 shall apply.

(6) Nothing in this rule shall be construed to limit the authority of the department to seek injunctive relief or to enforce the provisions of the act and the regulations promulgated under the act.

History: 2002 AACS.

R 336.1916 Affirmative defense for excess emissions during start-up or shutdown.

Rule 916. (1) The person operating a source with emissions in excess of an applicable emission limitation due to start-up or shutdown may claim an affirmative defense to an enforcement proceeding, excluding a judicial action seeking injunctive relief, if the person has complied with the reporting requirements of R 336.1912 and has demonstrated all of the following:

(a) The periods of excess emissions that occurred during start-up or shutdown were short and infrequent and could not have been prevented through careful planning and design.

(b) The excess emissions that occurred during start-up or shutdown were not part of a recurring pattern indicative of inadequate design, operation, or maintenance.

(c) The excess emissions caused by a bypass (an intentional diversion of control equipment) were unavoidable to prevent loss of life, personal injury, or severe property damage.

(d) The facility was operated at all times in a manner consistent with good practice for minimizing emissions.

(e) The frequency and duration of operating in start-up or shutdown mode were minimized to the maximum extent practicable.

(f) All reasonably possible steps were taken to minimize the impact of the excess emissions on ambient air quality.

(g) All emission monitoring systems were kept in operation if at all possible.

(h) The actions during the period of excess emissions were documented by contemporaneous operating logs or other relevant evidence as provided by R 336.1912.

(i) Excess emissions presenting an imminent threat to human health, safety, or the environment were reported to the department as soon as possible.

(j) Unless otherwise specified in the facility's permit, other excess emissions were reported as provided in R 336.1912. If requested by the department, a person shall submit a full written report that includes the known causes, the corrective actions taken, and the preventive measures to be taken to minimize or eliminate the chance of recurrence.

(k) Any information submitted to the department under this subrule shall be properly certified in accordance with the provisions of R 336.1912.

(2) This affirmative defense does not apply when a single emission unit, or multiple emission units at a stationary source, causes an exceedance of the national ambient air quality standards or any applicable prevention of significant deterioration increment.

(3) If the proximate cause of the excess emissions which occurred during routine start-up or shutdown periods was due to a malfunction, then, absent any intervening acts or superseding causes, the instances shall be treated as malfunctions in accordance with R 336.1915.

(4) Nothing in this rule shall be construed to limit the authority of the department to seek injunctive relief or to enforce the provisions of the act and the regulations promulgated under the act.

History: 2002 AACS.

R 336.1930 Emission of carbon monoxide from ferrous cupola operations.

Rule 930. (1) It is unlawful for a person to operate a ferrous cupola that has a melting capacity of 20 or more tons per hour located within any area listed in Table 91, unless the ferrous cupola is equipped with an afterburner control system, or equivalent, which reduces the carbon monoxide emissions from the ferrous cupola by 90%.

(2) The emission rate of carbon monoxide from a ferrous cupola shall be determined by using reference test method 10, unless otherwise specified by the department.

TABLE 91
Areas Subject to R 336.1930

County	Area
Wayne	T01S, R09E to R12E T02S, R09E to R11E T03S, R09E to R10E

History: 1995 AACS; 2001 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1931 Rescinded.

History: 1999 AACS; 2002 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1932 Rescinded.

History: 1999 AACS; 2002 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1933 Rescinded.

History: 2000 AACS; 2013 AACS.

R 336.1940 Ethylene Oxide Emissions Standards for Sterilization Facilities.

Rule 940. (1) The provisions of 40 C.F.R. Part 63, Subpart O, are adopted by reference in R 336.1902. A person responsible for the operation of a facility subject to the provisions of "Ethylene Oxide Emissions Standards for Sterilization Facilities," 40 C.F.R. Part 63, Subpart O, shall comply with those provisions.

(2) For the purpose of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 63, Subpart O mean the department.

History: 2000 AACS; 2008 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1941 Emission standards for chromium emissions from hard and decorative chromium electroplating and chromium anodizing tanks.

Rule 941. (1) The provisions of 40 C.F.R. Part 63, subpart N, are adopted by reference in R 336.1902. A person responsible for the operation of a facility that is subject to the provisions of "National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks," 40 C.F.R. Part 63, Subpart N, shall comply with those provisions.

(2) For the purpose of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 63, Subpart N mean the department.

History: 2000 AACS; 2008 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1942 Emission standards for asbestos.

Rule 942. (1) The provisions of 40 C.F.R. Part 61, Subpart M, are adopted by reference in R 336.1902. A person that is subject to the provisions of "National Emission Standards for Asbestos," 40 C.F.R. Part 61, Subpart M, shall comply with those provisions.

(2) For the purpose of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 61, Subpart M mean the department.

History: 2000 AACS; 2008 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1943 General provisions for emission standard.

Rule 943. (1) The provisions of 40 C.F.R. Part 63, Subpart A, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of "General Provisions," 40 C.F.R. Part 63, Subpart A, shall comply with those provisions.

(2) For purposes of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 63, Subpart A mean the department.

History: 2008 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1944 Emission standards for Portland cement manufacturing.

Rule 944. (1) The provisions of 40 C.F.R. Part 63, Subpart LLL, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of "National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry," 40 C.F.R. Part 63, Subpart LLL, shall comply with those provisions.

(2) For purposes of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 63, Subpart LLL mean the department.

History: 2008 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1945 Emission standards for publicly owned treatment works.

Rule 945. (1) The provisions of 40 C.F.R. Part 63, Subpart VVV, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of "National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works," 40 C.F.R. Part 63, Subpart VVV, shall comply with those provisions.

(2) For purposes of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 63, Subpart VVV mean the department.

History: 2008 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1946 Emission standards for secondary aluminum production.

Rule 946. (1) The provisions of 40 C.F.R. Part 63, Subpart RRR, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of "National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production," 40 C.F.R. Part 63, Subpart RRR, shall comply with those provisions.

(2) For purposes of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 63, Subpart RRR mean the department.

History: 2008 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1947 Emission standards for site remediation.

Rule 947. (1) The provisions of 40 C.F.R. Part 63, Subpart GGGGG, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of "National Emission Standards for Hazardous Air Pollutants: Site Remediation," 40 C.F.R. Part 63, Subpart GGGGG, shall comply with those provisions.

(2) For purposes of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 63, Subpart GGGGG mean the department.

History: 2008 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1948 Emission standards for area sources: electric arc furnace steelmaking facilities.

Rule 948. (1) The provisions of 40 C.F.R. Part 63, Subpart YYYYY, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of "National Emission Standards for Hazardous Air Pollutants for Area Sources: Electric Arc Furnace Steelmaking Facilities," 40 C.F.R. Part 63, Subpart YYYYY, shall comply with those provisions.

(2) For purposes of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 63, Subpart YYYYY mean the department.

History: 2013 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1949 Emissions standards for iron and steel foundry area sources.

Rule 949. (1) The provisions of 40 C.F.R. Part 63, Subpart ZZZZZ, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of "National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources," 40 C.F.R. Part 63, Subpart ZZZZZ, shall comply with those provisions.

(2) For purposes of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 63, Subpart ZZZZZ mean the department.

History: 2013 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1950 Emissions standards for aluminum, copper, and other nonferrous foundry area sources.

Rule 950. (1) The provisions of 40 C.F.R. Part 63, Subpart ZZZZZZ, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of "National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries," 40 C.F.R. Part 63, Subpart ZZZZZZ, shall comply with those provisions.

(2) For purposes of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 63, Subpart ZZZZZZ mean the department.

History: 2013 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1951 Emissions standards for secondary lead smelting.

Rule 951. (1) The provisions of 40 C.F.R. Part 63, Subpart X, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of "National Emissions Standards for Hazardous Air Pollutants from Secondary Lead Smelting," 40 C.F.R. Part 63, Subpart X, shall comply with those provisions.

(2) For purposes of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 63, Subpart X mean the department.

History: 2015 MR 11, Eff. May 20, 2015.

R 336.1952 Emissions standards for hazardous waste combustors.

Rule 952. (1) The provisions of 40 C.F.R. Part 63, Subpart EEE, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of "National Emissions Standards for Hazardous Air Pollutants from Hazardous Waste Combustors," 40 C.F.R. Part 63, Subpart EEE, shall comply with those provisions.

(2) For purposes of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 63, Subpart EEE mean the department.

History: 2015 MR 11, Eff. May 20, 2015.

R 336.1953 Emissions standards for mercury cell chlor-alkali plants.

Rule 953. (1) The provisions of 40 C.F.R. Part 63, Subpart IIIII, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of "National Emissions Standards for Hazardous Air Pollutants: Mercury Emissions from Mercury Cell Chlor-Alkali Plants," 40 C.F.R. Part 63, Subpart IIIII, shall comply with those provisions.

(2) For purposes of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 63, Subpart IIIII mean the department.

History: 2015 MR 11, Eff. May 20, 2015.

R 336.1954 Emissions standards for primary copper smelting area sources.

Rule 954. (1) The provisions of 40 C.F.R. Part 63, Subpart EEEEEE, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of

"National Emissions Standards for Hazardous Air Pollutants for Primary Copper Smelting Area Sources," 40 C.F.R. Part 63, Subpart EEEEEE, shall comply with those provisions.

(2) For purposes of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 63, Subpart EEEEEE mean the department.

History: 2015 MR 11, Eff. May 20, 2015.

R 336.1955 Emissions standards for secondary copper smelting area sources.

Rule 955. (1) The provisions of 40 C.F.R. Part 63, Subpart FFFFFF, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of "National Emissions Standards for Hazardous Air Pollutants for Secondary Copper Smelting Area Sources," 40 C.F.R. Part 63, Subpart FFFFFF, shall comply with those provisions.

(2) For purposes of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 63, Subpart FFFFFF mean the department.

History: 2015 MR 11, Eff. May 20, 2015.

R 336.1956 Emissions standards for primary nonferrous metals area sources – zinc, cadmium, and beryllium.

Rule 956. (1) The provisions of 40 C.F.R. Part 63, Subpart GGGGGG, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of "National Emissions Standards for Hazardous Air Pollutants for Primary Nonferrous Metals Area Sources – Zinc, Cadmium, and Beryllium,"
40 C.F.R. Part 63, Subpart GGGGGG, shall comply with those provisions.

(2) For purposes of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 63, Subpart GGGGGG mean the department.

History: 2015 MR 11, Eff. May 20, 2015.

R 336.1957 Emissions standards for carbon black production area sources.

Rule 957. (1) The provisions of 40 C.F.R. Part 63, Subpart MMMMMM, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of "National Emissions Standards for Hazardous Air Pollutants for Carbon Black Production Area Sources," 40 C.F.R. Part 63, Subpart MMMMMM, shall comply with those provisions.

(2) For purposes of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 63, Subpart MMMMMM mean the department.

History: 2015 MR 11, Eff. May 20, 2015.

R 336.1958 Emissions standards for chemical manufacturing area sources for chromium compounds.

Rule 958. (1) The provisions of 40 C.F.R. Part 63, Subpart NNNNNN, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of "National Emissions Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources: Chromium Compounds," 40 C.F.R. Part 63, Subpart NNNNNN, shall comply with those provisions.

(2) For purposes of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 63, Subpart NNNNNN mean the department.

History: 2015 MR 11, Eff. May 20, 2015.

R 336.1959 Emissions standards for glass manufacturing area sources.

Rule 959. (1) The provisions of 40 C.F.R. Part 63, Subpart SSSSSS, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of "National Emissions Standards for Hazardous Air Pollutants for Glass Manufacturing Area Sources," 40 C.F.R. Part 63, Subpart SSSSSS, shall comply with those provisions.

(2) For purposes of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 63, Subpart SSSSSS mean the department.

History: 2015 MR 11, Eff. May 20, 2015.

R 336.1960 Emissions standards for chemical manufacturing area sources.

Rule 960. (1) The provisions of 40 C.F.R. Part 63, Subpart VVVVVV, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of "National Emissions Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources," 40 C.F.R. Part 63, Subpart VVVVVV, shall comply with those provisions.

(2) For purposes of this rule, the terms "administrator" and "EPA" as used in 40 C.F.R. Part 63, Subpart VVVVVV mean the department.

History: 2015 MR 11, Eff. May 20, 2015.

R 336.1970 Rescinded.

History: 2008 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1971 Best available retrofit technology or BART program.

Rule 971. (1) The department shall determine applicability of best available retrofit technology based on the provisions of 40 C.F.R. Part 51, Subpart P, adopted by reference in R 336.1902.

(2) The owner or operator of a unit subject to BART shall perform an engineering analysis as described in the provisions of 40 C.F.R. Part 51, Subpart P and shall provide the results of the analysis to the department within 60 days of the effective date of this rule.

(3) If an electric generating unit (EGU) subject to BART is subject to the trading programs of the Clean Air Interstate Rule under 40 C.F.R. Part 97, the owner or operator of

the EGU is not required to conduct a BART analysis for sulfur dioxide and oxides of nitrogen emissions under this rule.

(4) An engineering analysis required by subrule (2) of this rule shall be submitted to the department and shall be subject to review and approval by the department. If the department determines additional information is required, the department shall provide to the owner or operator additional information requests and comments in writing. The owner or operator shall provide the requested information within 60 days from receipt of written requests and comments from the department. The department may determine that more than 60 days will be allowed.

(5) The department shall determine the BART level of control for each unit subject to BART based on the engineering analysis referenced in subrule (2) of this rule, the provisions of 40 C.F.R. Part 51, Subpart P and other information which the department determines to be relevant.

(6) The owner or operator of a unit subject to BART shall enter into a permit to install or consent order with the department to make the BART provisions legally enforceable within 90 days of the department's approval of the engineering analysis, unless the department determines that more than 90 days will be allowed. BART controls shall be in place and operating not later than 1 year from an approved engineering analysis.

(7) An owner or operator subject to this rule shall measure oxides of nitrogen and sulfur dioxide emissions with 1 or more of the following:

(a) A continuous emission monitoring system.

(b) An alternate method as described in 40 C.F.R. Part 60 or 75, adopted by reference in R 336.1902, as applicable and acceptable to the department.

(c) A method currently in use or a future method developed for use and acceptable to the department, including methods contained in existing permit conditions.

(8) An owner or operator of an emission unit that measures oxides of nitrogen or sulfur dioxide emissions by a continuous emission monitoring system shall do either of the following:

(a) Use procedures set forth in 40 C.F.R. Part 60, Subpart A and appendix B, and comply with the quality assurance procedures in appendix F, adopted by reference in R 336.1902, as applicable and acceptable to the department.

(b) Use procedures set forth in 40 C.F.R. Part 75, and associated appendices, adopted by reference in R 336.1902, as applicable and acceptable to the department.

(9) An owner or operator of an emission unit who uses a continuous emission monitoring system to demonstrate compliance with this rule and who has already installed a continuous emission monitoring system for oxides of nitrogen or sulfur dioxide pursuant to other applicable federal, state, or local rules shall meet the installation, testing, operation, quality assurance, and reporting requirements specified by the department.

(10) An owner or operator of an emission unit that is subject to this rule and has a permit or consent order issued under subrule (6) of this rule shall submit at a minimum semi-annual summary reports, in an acceptable format, to the department by March 15 for the reporting period July 1 to December 31 and September 15 for the reporting period January 1 to June 30 of each calendar year. The reports shall include all of the following information:

(a) The date, time, magnitude of emissions, and emission rates where applicable, of the specified emission unit or utility system.

(b) If emissions or emission rates exceed the emissions or emission rates allowed by the applicable emission limit, the cause, if known, and any corrective action taken.

(c) The total operating time of the emission unit during the time period.

(d) For continuous emission monitoring systems, system performance information shall include the date and time of each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments. When the continuous monitoring system has not been inoperative, repaired, or adjusted, the information shall be stated in the report.

(11) Quarterly summary reports, if required by the department pursuant to R 336.1213, shall be submitted within 30 days following the end of the calendar quarter and may be used in place of the semi-annual reports required pursuant to subrule (10) of this rule.

History: 2008 AACS; 2015 MR 11, Eff. May 20, 2015.

R 336.1972 Emissions standards for existing sewage sludge incineration units.

Rule 972. (1) Except as provided in subdivisions (c) to (e) of this subrule, by March 21, 2016, each sewage sludge incineration (SSI) unit for which construction was commenced on or before October 14, 2010, defined under "Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units," 40 C.F.R. §60.5250, shall achieve final compliance with the requirements of this rule. Final compliance means all process changes and control devices, as specified in the final control plan, are completed and operating as designed and the department receives notification of compliance, including a signature of the owner or operator of the unit.

(a) The SSI unit remains subject to the requirements and deadlines of this rule if any of the following apply:

(i) The owner or operator of a SSI unit makes physical or operation changes to the unit primarily to comply with this rule and the unit commenced construction on or before September 21, 2011.

(ii) The SSI unit closes and restarts prior to March 21, 2016.

(b) If the SSI unit closes and restarts after March 21, 2016, then the owner or operator of the unit shall meet the emission limits, emission standards, and operating limits in this rule on the date the unit restarts operations.

(c) A combustion unit that incinerates sewage sludge and is not located at a wastewater treatment facility designed to treat domestic sewage sludge is exempt from this rule upon notification to the department.

(d) If the owner or operator of a SSI unit makes changes that meet the definition of modification under 40 C.F.R. §60.5250 after September 21, 2011, the unit is subject to "Standards of Performance for New Sewage Sludge Incineration Units," 40 C.F.R. Part 60, Subpart LLLL. Such unit is exempt from this rule upon notification to the department.

(e) If an owner or operator chooses to cease operation of the SSI unit rather than comply with this rule, a closure notification shall be submitted to the department by March 21, 2015.

(2) The owner or operator of a SSI unit that has not submitted a closure or exemption notification to the department shall submit an application for a renewable operating permit and, by March 21, 2015, shall submit a final control plan meeting the requirements of 40 C.F.R. §60.5110 that is signed by the owner or operator of the unit.

(3) By March 21, 2016, each SSI unit shall comply with the following provisions of "Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units," 40 C.F.R. Part 60, Subpart MMMM, adopted by reference in

R 336.1902:

(a) "Increments of Progress," 40 C.F.R. §60.5110.

(b) "Operator Training and Qualifications," 40 C.F.R. §§60.5130 to 60.5160.

(c) "Emission Limits, Emission Standards, and Operating Limits and Requirements," 40 C.F.R. §§60.5165 to 60.5180.

(d) "Initial Compliance Requirements," 40 C.F.R. §§60.5185 to 60.5200.

(e) "Continuous Compliance Requirements," 40 C.F.R. §§60.5205 to 60.5215.

(f) "Performance Testing, Monitoring, and Calibration Requirements," 40 C.F.R. §§60.5220 to 60.5225.

(g) "Recordkeeping and Reporting," 40 C.F.R. §§60.5230 to 60.5235.

(h) "Title V Operating Permits," 40 C.F.R. §§60.5240 to 60.5245.

(i) "Definitions," 40 C.F.R. §60.5250.

(j) Tables 2 to 6.

(4) For purposes of this rule the term "administrator" as used in 40 C.F.R. Part 60, Subpart MMMM means the department.

History: 2015 MR 11, Eff. May 20, 2015.

STATE OF MICHIGAN
RUTH JOHNSON, SECRETARY OF STATE
DEPARTMENT OF STATE
LANSING

May 20, 2015

NOTICE OF FILING

ADMINISTRATIVE RULES

To: Secretary of the Senate
Clerk of the House of Representatives
Joint Committee on Administrative Rules
State Office of Regulatory Reinvention (Administrative Rule #2013-109-EQ)
Legislative Service Bureau (Secretary of State Filing #15-05-10)
Department of Environmental Quality

In accordance with the provisions of Section 46(1) of Act 306, Public Acts of 1969, as amended, and Executive Order 1995-6, this is to advise you that the Michigan Department of Licensing and Regulatory Affairs and the State Office of Regulatory Reinvention filed Administrative Rule #2013-109-EQ (Secretary of State Filing #15-05-10) on this date at 4:09 P.M. for the Department of Environmental Quality, entitled "Part 9. Emission Limitations and Prohibitions – Miscellaneous".

These rules become effective immediately upon filing with the Secretary of State unless adopted under sections 33, 44 or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

Sincerely,

Ruth Johnson
Secretary of State

Robin Houston/bw

Robin L. Houston, Departmental Supervisor
Office of the Great Seal

Enclosure

STATE OF MICHIGAN
DEPARTMENT OF ATTORNEY GENERAL

P.O. Box 30755
Lansing, Michigan 48909

BILL SCHUETTE
ATTORNEY GENERAL

Certification of Authority for the Michigan Department of Environmental Quality to Adopt by Reference the Emission Guidelines and Compliance Times for Existing Sewage Sludge Incinerators, 40 C.F.R. Part 60, Subpart MMMM

I hereby certify that the Michigan Department of Environmental Quality (MDEQ) has adopted by reference the Emission Guidelines and Compliance Times for Existing Sewage Sludge Incinerator Units, 40 C.F.R. Part 60, Subpart MMMM, §§ 60.5000 *et seq.*, in Rule 902 of the Michigan Air Pollution Control Rules, 2015 A.A.C.S., R 336.1902, pursuant to its authority under Michigan law. I further certify that the adoption by reference is valid and enforceable.

Michigan's Administrative Procedures Act, M.C.L. §§ 24.201 *et seq.*, authorizes the MDEQ to adopt by reference in its rules all or any part of a regulation adopted by an agency of the United States. Section 32(4) of the Administrative Procedures Act, M.C.L. § 24.232(4), states in relevant part:

> (4) An agency may adopt, by reference in its rules and without publishing the adopted matter in full, all or any part of a code, standard or regulation which has been adopted by an agency of the United States or by a nationally recognized organization or association. The reference shall fully identify the adopted matter by date and otherwise.

On May 20, 2015, the MDEQ adopted by reference all of 40 C.F.R. Part 60 (2013), including the emission guidelines for existing sewage sludge incinerator units, in Rule 902(1)(e) of the Michigan Air Pollution Control Rules. 2015 A.A.C.S., R 336.1902(1)(e). Also on May 20, 2015, the MDEQ promulgated Rule 972 of the Air Pollution Control Rules, 2015 A.A.C.S., R 336.1972. Rule 972 establishes emission standards for existing sewage sludge incineration units and requires that such units comply with the model rule provisions in the emission guidelines. Rule 972 also states that for purposes of the rule the term "administrator" as used in 40 C.F.R. Part 60, Subpart MMMM means the MDEQ.

The MDEQ's adoption by reference of EPA's Emission Guidelines and Compliance Times for Existing Sewage Sludge Incinerator Units in Rule 902(1)(e) of the Michigan Air Pollution Control Rules is lawful and enforceable.

Neil D. Gordon
Assistant Attorney General
Environment, Natural Resources
and Agriculture Division
(517) 373-7540

Date: May 27, 2015

LF: ENRA Gordon, Neil (Air Issues) AG# 2007-3000118-A/Certification - of Authority 2015-05-27

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT (EXCERPT)
Act 451 of 1994

324.5512 Rules.

Sec. 5512. (1) Subject to section 5514, the department shall promulgate rules for purposes of doing all of the following:

(a) Controlling or prohibiting air pollution.

(b) Complying with the clean air act.

(c) Controlling any mode of transportation that is capable of causing or contributing to air pollution.

(d) Reviewing proposed locations of stationary emission sources.

(e) Reviewing modifications of existing emission sources.

(f) Prohibiting locations or modifications of emission sources that impair the state's ability to meet federal ambient air quality standards.

(g) Establishing suitable emission standards consistent with federal ambient air quality standards and factors including, but not limited to, conditions of the terrain, wind velocities and directions, land usage of the region, and the anticipated characteristics and quantities of potential air pollution sources. This part does not prohibit the department from denying or revoking a permit to operate a source, process, or process equipment that would adversely affect human health or other conditions important to the life of the community.

(h) Implementing sections 5505 and 5506.

(2) Unless otherwise provided in this part, each rule, permit, or administrative order promulgated or issued under this part prior to November 13, 1993 shall remain in effect according to its terms unless the rule or order is inconsistent with this part or is revised, amended, or repealed.

(3) Section 11522 applies to open burning.

History: 1994, Act 451, Eff. Mar. 30, 1995;—Am. 2012, Act 102, Imd. Eff. Apr. 19, 2012;—Am. 2014, Act 417, Eff. Mar. 31, 2015.

Popular name: Act 451

Popular name: NREPA

Administrative rules: R 336.1101 et seq.; R 336.1122; and R 336.1201 et seq. of the Michigan Administrative Code.

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT (EXCERPT)
Act 451 of 1994

324.5516 Public hearing; information available to the public; use of confidential information.

Sec. 5516. (1) A public hearing with reference to pollution control may be held before the department. Persons designated to conduct the hearing shall be described as presiding officers and shall be disinterested and technically qualified persons.

(2) A copy of each permit, permit application, order, compliance plan and schedule of compliance, emissions or compliance monitoring report, sample analysis, compliance certification, or other report or information required under this part, rules promulgated under this part, or permits or orders issued under this part shall be available to the public to the extent provided by the freedom of information act, Act No. 442 of the Public Acts of 1976, being sections 15.231 to 15.246 of the Michigan Compiled Laws.

(3) A person whose activities are regulated under this part may designate a record or other information, or a portion of a record, permit application, or other information furnished to or obtained by the department or its agents, as being only for the confidential use of the department. The department shall notify the person asserting confidentiality of a request for public records under section 5 of the freedom of information act, Act No. 442 of the Public Acts of 1976, being section 15.235 of the Michigan Compiled Laws, the scope of which includes information that has been designated by the regulated person as being confidential. The person asserting confidentiality has 25 days after the receipt of the notice to demonstrate to the department that the information designated as confidential should not be disclosed because the information is a trade secret or secret process, or is production, commercial, or financial information the disclosure of which would jeopardize the competitive position of the person from whom the information was obtained, and make available information not otherwise publicly available. The department shall grant the request for the information unless the person regulated under this part demonstrates to the satisfaction of the department that the information should not be disclosed. If there is a dispute between the person asserting confidentiality and the person requesting information under Act No. 442 of the Public Acts of 1976, the department shall make the decision to grant or deny the request. After the department makes a decision to grant a request, the information requested shall not be released until 8 business days after the regulated person's receipt of notice of the department's decision. This does not prevent the use of the information by the department in compiling or publishing analyses or summaries relating to ambient air quality if the analyses or summaries do not identify the person or reveal information which is otherwise confidential under this section. This section does not render data on the quantity, composition, or quality of emissions from any source confidential. Data on the amount and nature of air contaminants emitted from a source shall be available to the public.

History: 1994, Act 451, Eff. Mar. 30, 1995.

Popular name: Act 451

Popular name: NREPA

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT (EXCERPT)
Act 451 of 1994

324.5526 Investigation; inspection; furnishing duplicate of analytical report; powers of department or authorized representative; entry or access to records refused; powers of attorney general; "authorized representative" defined.

Sec. 5526. (1) The department may, upon the presentation of credentials and other documents as may be required by law, and upon stating the authority and purpose of the investigation, enter and inspect any property at reasonable times for the purpose of investigating either an actual or suspected source of air pollution or ascertaining compliance or noncompliance with this part, rules promulgated under this part, the clean air act, a permit issued under this part, or any determination or order issued under this part. If in connection with an investigation or inspection, samples of air contaminants are taken for analysis, a duplicate of the analytical report shall be furnished promptly to the person who is suspected of causing the air pollution. In implementing this subsection, the department or its authorized representative may do any of the following:

(a) Have access to and copy, at reasonable times, any records that are required to be maintained pursuant to this part, rules promulgated under this part, the clean air act, a permit issued under this part, or any determination or order issued under this part.

(b) Inspect at reasonable times any facility, equipment, including monitoring and air pollution control equipment, practices, or operations regulated or required under this part, rules promulgated under this part, the clean air act, a permit issued under this part, or any determination or order issued under this part.

(c) Sample or monitor at reasonable times substances or parameters for the purpose of determining compliance with this part, rules promulgated under this part, the clean air act, a permit issued under this part, or any determination or order issued under this part. The department may enter into a contract with a person to sample and monitor as authorized under this subdivision.

(2) If the department, or an authorized representative of the department, is refused entry or access to records and samples under subsection (1) for the purposes of utilizing this section, the attorney general, on behalf of the state, may do either of the following:

(a) Petition the court of appropriate jurisdiction for a warrant authorizing entry or access to records and samples pursuant to this section.

(b) Commence a civil action to compel compliance with a request for entry and access to records and samples pursuant to this section, to authorize entry and access to records and samples provided for in this section, and to enjoin interference with the utilization of this section.

(3) As used in this section, "authorized representative" means any of the following:

(a) A full- or part-time employee of the department of natural resources or other state department or agency to which the department delegates certain duties under this section.

(b) A county to which authority is delegated under section 5523.

(c) For the purpose of utilizing the powers conferred in subsection (1)(c), a contractor retained by the state or a county to which authority is delegated under section 5523.

History: 1994, Act 451, Eff. Mar. 30, 1995.

Popular name: Act 451

Popular name: NREPA

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT (EXCERPT)
Act 451 of 1994

324.5530 Commencement of civil action by attorney general; relief; costs; jurisdiction; defenses; fines.

Sec. 5530. (1) The attorney general may commence a civil action against a person for appropriate relief, including injunctive relief, and a civil fine as provided in subsection (2) for any of the following:

(a) Violating this part or a rule promulgated under this part.

(b) Failure to obtain a permit under this part.

(c) Failure to comply with the terms of a permit or an order issued under this part.

(d) Failure to pay an air quality fee or comply with a filing requirement under this part.

(e) Failure to comply with the inspection, entry, and monitoring requirements of this part.

(f) A violation described in section 5518(2).

(2) In addition to any other relief authorized under this section, the court may impose a civil fine of not more than $10,000.00 for each instance of violation and, if the violation continues, for each day of continued violation.

(3) In addition to other relief authorized under this section, the attorney general may, at the request of the department, file an action in a court of competent jurisdiction to recover the full value of the injuries done to the natural resources of the state.

(4) In issuing a final order in an action brought pursuant to this section, the court may award costs of litigation, including, but not limited to, reasonable attorney and expert witness fees, to the prevailing or substantially prevailing party if the court determines that such an award is appropriate.

(5) A civil action brought under this section may be brought in the county in which the defendant is located, resides, or is doing business, or in the circuit court for the county of Ingham, or in the county in which the registered office of a defendant corporation is located, or in the county where the violation occurred.

(6) General defenses and affirmative defenses, that may otherwise apply under state law may apply in an action brought under this section as determined to be appropriate by a court of competent jurisdiction.

(7) Fines imposed under this section shall be assessed for each instance of violation and, if the violation is continuous, shall be assessable up to the maximum amount for each day of violation.

History: 1994, Act 451, Eff. Mar. 30, 1995.

Popular name: Act 451

Popular name: NREPA

ATTACHMENT B

CITY OF BATTLE CREEK
DEPARTMENT OF PUBLIC WORKS • WASTEWATER DIVISION

Mr. Rex Lane
Senior Environmental Quality Analyst
Air Quality Division
Kalamazoo District Office

Dear Mr. Lane:

Subject: Closure Date for SSI Units in Battle Creek

Pursuant to the request by the Department of Environmental Quality to notify of Battle Creek Wastewater Treatment Plant's intent on future incineration, we hereby submit formal notification of Closure. The City of Battle Creek Michigan will no longer incinerate waste municipal solids, and will decommission the two Sewage Sludge Incinerators by March 21, 2016.

If you have any further questions or concerns regarding our intentions please feel free to contact me at any time.

Sincerely,

Richard Beardslee

Wastewater Superintendent

City of Battle Creek Michigan

269-966-3599

2000 River Road West • Battle Creek, Michigan • 49037-7481
(269) 966-3513 • Fax (269) 965-3290 • Web: www.battlecreekmi.gov

M-

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

B415013946

FACILITY: EAST LANSING WASTEWATER TREATMENT PLANT		SRN / ID: B4150
LOCATION: 1700 TROWBRIDGE, EAST LANSING		DISTRICT: Lansing
CITY: EAST LANSING		COUNTY: INGHAM
CONTACT: Jeff Johnston , Superintendant		ACTIVITY DATE: 04/29/2011
STAFF: Brian Culham	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT: Determine compliance. Discuss voiding incinerator permits.		
RESOLVED COMPLAINTS:		

East Lansing Waste Water Treatment is a Minor Source of both Criteria Pollutants and Hazardous Air Pollutants (HAP). The Minor Source status was verified in 1997 when a Potential to Emit (PTE) demonstration was submitted and reviewed by AQD staff.

The incinerators are currently subject to the following:

40 CFR 61 subpart E, NESHAP for Mercury. Emissions to the atmosphere from sludge incineration plants, sludge drying plants, or a combination of these that process wastewater treatment plant sludge, shall not exceed 3.2 kg (7.1 lb) of mercury per 24-hour period.

40 CFR 61 subpart C, NESHAP for Beryllium. Extraction plants, ceramic plants, foundries, incinerators, and propellant plants which process beryllium ore, beryllium, beryllium oxide, beryllium alloys, or beryllium-containing waste. Emissions to the atmosphere from stationary sources subject to the provisions of this subpart shall not exceed 10 grams (0.022 lb) of beryllium over a 24-hour period.

40 CFR 60 Subpart MMMM--Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units. These requirements are to be included in an approved State Plan. It is my understanding that the rule does not come into effect until May of this year and compliance in another three years. Citation 60.5125 states that if a source plans to close its SSI unit rather than comply with the state plan, they need to submit a closure notification, including the date of closure, to the Administrator by the date their final control plan is due.

The incinerators are not subject to:

40 CFR 61 subpart FF, NESHAP for Benzene. East Lansing Waste Water Treatment is not a permitted hazardous waste storage or disposal facility, so is not subject to this subpart.

40 CFR 63 subpart FF, MACT NESHAP for Publicly Owned Waste Water Treatment plants. East Lansing Waste Water Treatment is not a Major Source of HAP, so is not subject to this subpart.

The incinerators were last used on October 17, 2002.

I arrived at 2:30. I met with Jeff Johnston, Superintendent of the source. We discussed the advantages of voiding the permits. I stated that it was my opinion that they could not operated the boilers without extensive repairs and replacements and that in making those repairs; a modification permit would likely be required.

I was joined on the inspection with Catherine Graham, Process Control Supervisor, and Wayne. Culham

2 Sludge Incinerators
Permits 247-71 and 102-72 were issued to East Lansing Waste Water for the installation of two Multiple Hearth Inc. Incinerators. The incinerators were permitted with scrubbers and low velocity mist eliminators. It is my understanding that the incinerators are 6 hearth units. Two hearths dry, two incinerated, and two cool. Ash disposal for the original incinerator design included ash quenching and pumping the slurry to two lagoons situated east of the plant.

During my inspection I identified the two incinerators. They were not operating and appeared to be

decommissioned. Analyzer components for the CEM/COMs were missing as were the computer components for Data Acquisition and Storage (DAS). Instrumentation in the control room was out of repair. Wayne stated that the gas supply to the units had been disconnected. I also noticed from a photograph that the east ash lagoon had been filled in. The west lagoon still exists but was reduced in size.

At present the sludge is being dewatered, loaded on trucks, and sent to Granger landfill.

The remaining waste water treatment equipment appeared to be exempt by rule 285 (m).

J. Johnston did indicate that two small natural gas boilers are used to provide comfort heat and hot water. Rule 282 (b) exempts these units from the need for an air use permit.

NAME _____ DATE 5-3-2011 SUPERVISOR _____

CITY OF EAST LANSING
EAST LANSING, MICHIGAN

CATHERINE GARNHAM
Process Control Supervisor

Wastewater Treatment Plant
517-371-2240
517-371-2243 FAX

1700 Trowbridge Road
East Lansing, MI 48823
cgarnha@cityofeastlansing.com

CITY OF EAST LANSING
EAST LANSING, MICHIGAN

JEFF JOHNSTON
Superintendent

Wastewater Treatment Plant
517-371-2240
517-371-2243 FAX

1700 Trowbridge Road
East Lansing, MI 48823
jjohnst@cityofeastlansing.com

CITY OF FLINT
DEPARTMENT OF PUBLIC WORKS
WATER POLLUTION CONTROL DIVISION

Dayne Walling
Mayor

DARNELL EARLEY
EMERGENCY MANAGER

Robert J. Case
WPC Supervisor

DEQ-AQD LANSING D.O.

APR 03 2014

March 19, 2014

Mr. G. Vinson Hellwig
Chief, Air Quality Division
Michigan Department of Environmental Quality
P.O. Box 30260
525 West Allegan Street
Lansing, Michigan 48909-7760

RECEIVED
MAR 26 2014
AIR QUALITY DIV.

Re: Title V Renewable Operating Permit, City of Flint Water Pollution Control

Dear Mr. Culham:

As we discussed last week, a submission date is approaching this week which may require that the City of Flint submit an application for a Renewable Operating Permit (ROP) for its four sewage sludge incinerators (SSI). Our SSIs are not a major source, but in recent years, 40 CFR Part 60, Subpart MMMM, has been promulgated to regulate all existing SSIs.

The compliance date for Subpart MMMM is March 21, 2016. The City of Flint has evaluated its sludge management options accordingly, and decided that incineration is no longer cost effective. Therefore, we plan to phase them out prior to the compliance date. It makes little sense for either the City or the State DEQ to expend the significant resources that would be needed to draft and negotiate an ROP when the City intends to shut down these SSIs in the near future, and certainly well before the March 21, 2016 compliance date.

Although the City of Flint has in the recent past made significant improvements to its incinerators and feed systems, and the emissions performance has been excellent, the new MMMM emission standards and numerous other new Part 60 requirements mandate new capital expenses beyond affordability. Flint continues to generate a shrinking amount of sludge as a result of continued losses of industry and population, a trend not expected to change in the foreseeable future. The City has significant financial challenges, and is operating under an Emergency Manager. It is not in a position to expend its very limited resources for an ROP application.

It also plans to more cost-effectively manage its sludge by landfilling it, rather than incinerating it. Currently, design for a new loadout building and conveyance system to enable the landfilling

is underway. The City has engaged the engineering firm of Hubbell, Roth, and Clark to perform the work. The projected schedule is to finish the design, prepare bid specifications, procure DEQ approval, bid and award the contract, and begin construction this summer. Construction should be complete by early next year. Once the initial operations and adjustments have been made, and the facility is considered to be running reliably, the incinerators will be shut down indefinitely. There is no current plan to use them again after they are shut down, although restart is a possibility (but an unlikely possibility). A notice will be sent to both DEQ and USEPA when the shutdown date is known.

The City of Flint therefore will not submit an ROP application. In the unlikely event that the City ever considers resuming incinerator operation, you will be notified. The incinerators would not resume operation until the appropriate retrofits, improvements, and air use permits were in place.

I thank you for your attention in this matter. Should you need any further information, you may contact me by phone at (810) 577-6703 or email at rcase@cityofflint.com.

Robert J. Case

Robert J. Case
WPC Supervisor, City of Flint

cc: M. Robinson, WNJ
J. Thaler, FTCH
Brian Culham, MDEQ

WRC
WATER RESOURCES COMMISSIONER
Jim Nash

March 6, 2015

Mr. Christopher Ethridge
Southeast Michigan District Supervisor
Air Quality Division
Southeast Michigan District
27700 Donald Court
Warren, Michigan 48092-2793

Re: Decommissioning Existing Sewage Sludge Incineration Units located at Pontiac Wastewater Treatment Plant 155 N. Opdyke Road, Pontiac MI

Dear Mr. Ethridge:

The Pontiac Wastewater Treatment Facility Chapter 20 Drainage District (COPWWTFDD) is in receipt of your letter dated February 10, 2015. The operation of the existing sewage sludge incineration (SSI) ceased on June 16, 2011 when the City of Pontiac entered into an agreement with United Water for operation and maintenance of the wastewater treatment facility.

This letter is to serve as an official closure notification to the Michigan Department of Environmental Quality for the decommissioning of the existing Pontiac Wastewater Treatment Facility Sewage Sludge Incineration Unit. The COPWWTFDD plans to isolate and disconnect the natural gas feed line and the sludge feed conveyor to the sewage sludge incinerator by no later than May 1, 2015.

Please do not hesitate to contact me if you have any questions or concerns.

Sincerely,

Navid Mehram, P.E.
Operation Engineer

cc: Michael Daniels, United Water
Laura Verona, MDEQ

Navid Mehram, PE
Oakland County WRC
1 Public Works Dr.
Waterford, MI 48328

April 30, 2015

Dear Mr. Mehram,

As you requested we permanently decommissioned the sludge incinerator at the Pontiac (Auburn) Wastewater Treatment Plant. We performed the decommissioning by shutting off the gas supply, removing a section of the gas piping and installing blind flanges to both ends of the pipe. To assure that no sludge will be fed to the incinerator both feed hatches were capped with steel and welded shut. There was a north feed hatch and a south feed hatch.

I have attached pictures of the modifications that were made to verify the decommissioning. The pictures are labeled for your convenience.

If you have questions, please contact me at your convenience.

Sincerely,

Jeanette M. Best

Jeanette M. Best
Project Manager
United Water

Michigan Department of Environmental Quality
Air Quality Division

EFFECTIVE DATE: January 31, 2014
REVISION DATE: June 13, 2014

ISSUED TO
Detroit Water and Sewerage Department
Detroit Wastewater Treatment Plant

State Registration Number (SRN): B2103

LOCATED AT

9300 W. Jefferson Avenue, Detroit, Michigan 48209-2696

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-B2103-2014a

Expiration Date: January 31, 2019

Administratively Complete ROP Renewal Application Due
Between July 31, 2017 and July 31, 2018

This Renewable Operating Permit (ROP) is issued in accordance with and subject to Section 5506(3) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Pursuant to Michigan Air Pollution Control Rule 210(1), this ROP constitutes the permittee's authority to operate the stationary source identified above in accordance with the general conditions, special conditions and attachments contained herein. Operation of the stationary source and all emission units listed in the permit are subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

SOURCE-WIDE PERMIT TO INSTALL

Permit Number: MI-PTI-B2103-2014a

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(5) of Act 451. Pursuant to Michigan Air Pollution Control Rule 214a, the terms and conditions herein, identified by the underlying applicable requirement citation of Rule 201(1)(a), constitute a federally enforceable PTI. The PTI terms and conditions do not expire and remain in effect unless the criteria of Rule 201(6) are met. Operation of all emission units identified in the PTI is subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

Michigan Department of Environmental Quality

_____
Wilhemina McLemore, Detroit District Supervisor

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AUTHORITY AND ENFORCEABILITY

For the purpose of this permit, the **permittee** is defined as any person who owns or operates an emission unit at a stationary source for which this permit has been issued. The **department** is defined in Rule 104(d) as the Director of the Michigan Department of Environmental Quality (MDEQ) or his or her designee.

The permittee shall comply with all specific details in the permit terms and conditions and the cited underlying applicable requirements. All terms and conditions in this ROP are both federally enforceable and state enforceable unless otherwise footnoted. Certain terms and conditions are applicable to most stationary sources for which an ROP has been issued. These general conditions are included in Part A of this ROP. Other terms and conditions may apply to a specific emission unit, several emission units which are represented as a flexible group, or the entire stationary source which is represented as a source-wide group. Special conditions are identified in Parts B, C, D and/or the appendices.

In accordance with Rule 213(2)(a), all underlying applicable requirements will be identified for each ROP term or condition. All terms and conditions that are included in a PTI, are streamlined or subsumed, or is state only enforceable will be noted as such.

In accordance with Section 5507 of Act 451, the permittee has included in the ROP application a compliance certification, a schedule of compliance, and a compliance plan. For applicable requirements with which the source is in compliance, the source will continue to comply with these requirements. For applicable requirements with which the source is not in compliance, the source will comply with the detailed schedule of compliance requirements that are incorporated as an appendix in this ROP. Furthermore, for any applicable requirements effective after the date of issuance of this ROP, the stationary source will meet the requirements on a timely basis, unless the underlying applicable requirement requires a more detailed schedule of compliance.

Issuance of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

A. GENERAL CONDITIONS

Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**

- Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R 336.1214a(5))**

- Those conditions that are hereby incorporated in a federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**

2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. **(R 336.1213(1)(b))**

3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**

4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities **(R 336.1213(1)(d))**:
   a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
   c. Inspect, at reasonable times, any of the following:
      i. Any stationary source.
      ii. Any emission unit.
      iii. Any equipment, including monitoring and air pollution control equipment.
      iv. Any work practices or operations regulated or required under the ROP.
   d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.

5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq.,

and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**

7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**

8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**

10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

Emission Limits

11. Except as provided in Subrules 2, 3, and 4 of Rule 301, states in part; "a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of Rule 301(1)(a) or (b) unless otherwise specified in this ROP." The grading of visible emissions shall be determined in accordance with Rule 303. **(R 336.1301(1) in pertinent part)**:
    a. A 6-minute average of 20 percent opacity, except for one 6-minute average per hour of not more than 27 percent opacity.
    b. A limit specified by an applicable federal new source performance standard.

12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
    a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.[1] **(R 336.1901(a))**
    b. Unreasonable interference with the comfortable enjoyment of life and property.[1] **(R 336.1901(b))**

Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1). **(R 336.2001)**

14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**

15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(4))**

Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate **(R 336.1213(3)(b))**:
    a. The date, location, time, and method of sampling or measurements.
    b. The dates the analyses of the samples were performed.
    c. The company or entity that performed the analyses of the samples.
    d. The analytical techniques or methods used.
    e. The results of the analyses.
    f. The related process operating conditions or parameters that existed at the time of sampling or measurement.

17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a responsible official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**

19. A responsible official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. **(R 336.1213(4)(c))**

20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**

21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
    a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
    b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
    c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following **(R 336.1213(3)(c))**:
    a. Submitting a certification by a responsible official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
    b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a responsible official which states that, "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete". The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.

23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**

24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**

25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a responsible official in a manner consistent with the CAA. **(R 336.1912)**

Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance, if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
    a. The applicable requirements are included and are specifically identified in the ROP.
    b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

    Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.

27. Nothing in this ROP shall alter or affect any of the following:
    a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
    b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
    c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**

28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
    a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
    b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
    c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
    d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
    e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**

29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**

31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**

32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(9))**

33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

Reopenings

34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
    a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
    b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
    c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**
    d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(7))**

Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F.

37. If the permittee is subject to 40 CFR, Part 82, and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR, Part 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR, Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).

39. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall comply with the requirements of 40 CFR, Part 68, no later than the latest of the following dates as provided in 40 CFR, Part 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR, Part 68.130, or
    c. The date on which a regulated substance is first present above a threshold quantity in a process.

40. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR, Part 68.

41. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR, Part 68)**

Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan's State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

Permit To Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule. [2] **(R 336.1201(1))**

44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA. [2] **(R 336.1201(8), Section 5510 of Act 451)**

45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, MDEQMMDEQ. [2] **(R 336.1219)**

46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months, or has been interrupted for 18 months, the applicable terms and conditions from that PTI shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, MDEQ, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI. [2] **(R 336.1201(4))**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

Consent Orders

The conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the Chief of the AQD.

B. SOURCE-WIDE CONDITIONS

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

SOURCE-WIDE CONDITIONS

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Beryllium	10 grams	24-hour period	All process equipment at the facility, including equipment covered by other permits, grand-fathered equipment and exempt equipment.	Appendix 4	40 CFR 61.32(a)
2. Mercury	3,200 grams	24-hour period	All process equipment at the facility, including equipment covered by other permits, grand-fathered equipment and exempt equipment.	V.1, Appendix 4	40 CFR 61.52(b)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall test sewage sludge samples from the incinerator feed system once per calendar month for mercury content using EPA Reference Method 105. If the measured mercury content from the incinerator feed system exceeds 1.43 mg/kg, then the permittee shall notify the District Supervisor. Test results shall be submitted to the District Supervisor. **(40 CFR 61.52(b), 40 CFR 61.53(d)(2), 40 CFR 61.54(a), 40 CFR Part 503.43, 40 CFR Part 503.46)**

See Appendix 5

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep records of the fugitive dust control measures taken at the facility, utilizing the format in Appendix 4.1. **(Act 451, Part 55 §324.5524), (Consent Order MDEQ SIP No. 11-1993)**

See Appendix 4

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall implement and maintain a Fugitive Dust Control Plan, including the following provisions:

   1. Paved Road
      a) Daily sweeping, washing, or vacuuming in the material handling area on days when material handling takes place
      b) Weekly sweeping, washing or vacuuming – All other paved roadways
      c) The frequency of the above treatment in a & b can be exempted when at least one of the following conditions occurs:
         i. Daily precipitation exceeds 0.1 in.
         ii. Daily high temperature does not exceed 32° F.
         iii. Road salt is applied and for 48 hours thereafter
         iv. Freezing conditions are anticipated
         v. No bulk material handling operations are conducted.

      (Consent Order MDEQ SIP No. 11-1993), (Act 451, Part 55 §324.5524)

   2. Gravel Parking - Add gravel cover as needed. **(Consent Order MDEQ SIP No. 11-1993), (Act 451, Part 55 §324.5524)**

   3. Incineration Complexes I and II - Watering daily to the following area
      a) Five Ash Silos
      b) Gravity Discharge

      (Consent Order MDEQ SIP No. 11-1993), (Act 451, Part 55 §324.5524)

   4. Unpaved roads, paved roads, storage piles, and material handling, and open areas and lots, created after the effective date of the consent order (dated May 19, 1993) shall meet the same requirements as similar area

sources specifically identified in Appendix 4.1. **(Consent Order MDEQ SIP No. 11-1993), (Act 451, Part 55 §324.5524)**

5. The permittee shall notify the Division within 30 calendar days following the quarter in which any new area sources were created and the notification shall include a description of any new area source. **(R336.1213(3)), (Consent Order MDEQ SIP No. 11-1993)**

6. The permittee shall not retain dewatered sludge on the plant site for more than 12 hours, except when landfill opportunities are limited, such as weekends and holidays. **(R336.1901)[1], (Act 451, Part 55 §324.5524)**

7. The sludge from the exterior of the vehicles hauling sludge shall be washed at intervals at the plant. Such washings shall be routed to the treatment plant. **(R336.1901)[1], (Act 451, Part 55 §324.5524)**

8. The permittee shall wash and clean all roadways on a daily basis or more frequent if odor occurs to prevent accumulations of sludge or the generation of odors. **(R336.1901)[1], (Act 451, Part 55 §324.5524)**

9. The conditions contained in this RO permit for which a Consent Order is the only identified applicable requirement shall be considered null and void upon the effective date of the termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the Chief of Air Quality Division. **(Consent Order MDEQ SIP No. 11-1993)**

10 The permittee shall comply with the fugitive dust control plan as described below:

DETROIT WATER AND SEWERAGE DEPARTMENT -WASTEWATER TREATMENT PLANT
FUGITIVE DUST CONTROL PLAN

Wind Erosion and Traffic Emissions
Roads, Parking Lots, and Open Areas

Type of Surface Usage	PAVED ROAD	GRAVEL ROAD	PAVED PARKING	GRAVEL PARKING	CONSTRUCTION AREA
SURFACE AREA (Square Feet)	713,361	4,531	145,307	20,575	445,254
Average Vehicle Speed (MPH)	10	10			
PASSENGER CARS & SMALL TRUCKS					
Average number per day	90	15			
Average feet traveled/vehicle	32,000	1,100			
MED. DUTY VEHICLES (3-15 TONS)					
Average number per day	10	10			
Average Feet traveled/vehicle	12,000	1,100			
HEAVY DUTY VEHICLES (>15 Tons)					
Average Number per day	20	10			
Average feet traveled/vehicle	6,000	1,100			

Sweep, wash, or vacuuming for material handling areas daily and for other roadways weekly.

(Act 451, Part 55 §324.5524),(Consent Order MDEQ SIP No. 11-1993, Fugitive Control Plan, May, 1993)

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

C. EMISSION UNIT CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUINC01	Incinerator combusts dewatered municipal sewage sludge with the aid of natural gas burners to reduce its volume. Residual ash is sent to storage silos or lagoon before transport to landfill. Emissions are controlled by a venturi scrubber followed by an impingement type wet scrubber and mist eliminator.	01/01/1960	FGCOMPLEX1
EUINC03	Incinerator combusts dewatered municipal sewage sludge with the aid of natural gas burners to reduce its volume. Residual ash is sent to storage silos or lagoon before transport to landfill. Emissions are controlled by a venturi scrubber followed by an impingement type wet scrubber and mist eliminator.	01/01/1940	FGCOMPLEX1
EUINC04	Incinerator combusts dewatered municipal sewage sludge with the aid of natural gas burners to reduce its volume. Residual ash is sent to storage silos or lagoon before transport to landfill. Emissions are controlled by a venturi scrubber followed by an impingement type wet scrubber and mist eliminator.	01/01/1940	FGCOMPLEX1
EUINC05	Incinerator combusts dewatered municipal sewage sludge with the aid of natural gas burners to reduce its volume. Residual ash is sent to storage silos or lagoon before transport to landfill. Emissions are controlled by a venturi scrubber followed by an impingement type wet scrubber and mist eliminator.	01/01/1940	FGCOMPLEX1

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUINC06	Incinerator combusts dewatered municipal sewage sludge with the aid of natural gas burners to reduce its volume. Residual ash is sent to storage silos or lagoon before transport to landfill. Emissions are controlled by a venturi scrubber followed by an impingement type wet scrubber and mist eliminator.	01/01/1960	FGCOMPLEX1
EUC1ASH01	System for conveying ash from Complex 1 sludge incinerators and storing it prior to transport to sanitary landfill. Emissions are controlled by a fabric filter.	01/01/1937	FGC1ASH
EUC1ASH02	System for conveying ash from Complex 1 sludge incinerators and storing it prior to transport to sanitary landfill. Emissions are controlled by a fabric filter.	01/01/1937	FGC1ASH
EUC1ASH03	System for conveying ash from Complex 1 sludge incinerators and storing it prior to transport to sanitary landfill. Emissions are controlled by a fabric filter.	01/01/1937	FGC1ASH
EUINC07	Multiple hearth sewage sludge incinerator combusts dewatered municipal sewage sludge with the aid of natural gas burners to reduce its volume. Residual ash is sent to storage silos or lagoon before transport to landfill. Emissions are controlled by a venturi scrubber followed by an impingement tray wet scrubber and a mist eliminator. Following the air quality control improvements (AQCI), emissions will be controlled by an upgraded impingement tray wet scrubber followed by a new venturi scrubber and a mist eliminator.	11/01/1970 / 11/01/2013	FGCOMPLEX2 FGAQCI FG4M-INCIN FG2013Project
EUINC08	Multiple hearth sewage sludge incinerator combusts dewatered municipal sewage sludge with the aid of natural gas burners to reduce its volume. Residual ash is sent to storage silos or lagoon before transport to landfill. Emissions are controlled by a venturi scrubber followed by an impingement tray wet scrubber and a mist eliminator. Following the air quality control improvements (AQCI), emissions will be controlled by an upgraded impingement tray wet scrubber followed by a new venturi scrubber and a mist eliminator.	11/01/1970 / 11/01/2013	FGCOMPLEX2 FGAQCI FG4M-INCIN FG2013Project

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUINC09	Multiple hearth sewage sludge incinerator combusts dewatered municipal sewage sludge with the aid of natural gas burners to reduce its volume. Residual ash is sent to storage silos or lagoon before transport to landfill. Emissions are controlled by a venturi scrubber followed by an impingement tray wet scrubber and a mist eliminator. Following the air quality control improvements (AQCI), emissions will be controlled by an upgraded impingement tray wet scrubber followed by a new venturi scrubber and a mist eliminator.	11/01/1970 / 11/01/2013	FGCOMPLEX2 FGAQCI FG4M-INCIN FG2013Project
EUINC10	Multiple hearth sewage sludge incinerator combusts dewatered municipal sewage sludge with the aid of natural gas burners to reduce its volume. Residual ash is sent to storage silos or lagoon before transport to landfill. Emissions are controlled by a venturi scrubber followed by an impingement tray wet scrubber and a mist eliminator. Following the air quality control improvements (AQCI), emissions will be controlled by an upgraded impingement tray wet scrubber followed by a new venturi scrubber and a mist eliminator.	11/01/1970 / 11/01/2013	FGCOMPLEX2 FGAQCI FG4M-INCIN FG2013Project
EUINC11	Multiple hearth sewage sludge incinerator combusts dewatered municipal sewage sludge with the aid of natural gas burners to reduce its volume. Residual ash is sent to storage silos or lagoon before transport to landfill. Emissions are controlled by a venturi scrubber followed by an impingement tray wet scrubber and a mist eliminator. Following the air quality control improvements (AQCI), emissions will be controlled by an upgraded impingement tray wet scrubber followed by a new venturi scrubber and a mist eliminator.	11/01/1970 / 11/01/2013	FGCOMPLEX2 FGAQCI FG4M-INCIN FG2013Project
EUINC12	Multiple hearth sewage sludge incinerator combusts dewatered municipal sewage sludge with the aid of natural gas burners to reduce its volume. Residual ash is sent to storage silos or lagoon before transport to landfill. Emissions are controlled by a venturi scrubber followed by an impingement tray wet scrubber and a mist eliminator. Following the air quality control improvements (AQCI), emissions will be controlled by an upgraded impingement tray wet scrubber followed by a new venturi scrubber and a mist eliminator.	11/01/1970 / 11/01/2013	FGCOMPLEX2 FGAQCI FG4M-INCIN FG2013Project

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUINC13	Multiple hearth sewage sludge incinerator combusts dewatered municipal sewage sludge with the aid of natural gas burners to reduce its volume. Residual ash is sent to storage silos or lagoon before transport to landfill. Emissions are controlled by a venturi scrubber followed by an impingement tray wet scrubber and a mist eliminator. Following the air quality control improvements (AQCI), emissions will be controlled by an upgraded impingement tray wet scrubber followed by a new venturi scrubber and a mist eliminator.	11/01/1970 / 11/01/2013	FGCOMPLEX2 FGAQCI FG4M-INCIN FG2013Project
EUINC14	Multiple hearth sewage sludge incinerator combusts dewatered municipal sewage sludge with the aid of natural gas burners to reduce its volume. Residual ash is sent to storage silos or lagoon before transport to landfill. Emissions are controlled by a venturi scrubber followed by an impingement tray wet scrubber and a mist eliminator. Following the air quality control improvements (AQCI), emissions will be controlled by an upgraded impingement tray wet scrubber followed by a new venturi scrubber and a mist eliminator.	11/01/1970 / 11/01/2013	FGCOMPLEX2 FGAQCI FG4M-INCIN FG2013Project
EUC2ASH01	System for conveying ash from Complex 2 sludge incinerators and storing it prior to transport to sanitary landfill. Emissions are controlled by a fabric filter.	11/01/1970	FGC2ASH
EUC2ASH02	System for conveying ash from Complex 2 sludge incinerators and storing it prior to transport to sanitary landfill. Emissions are controlled by a fabric filter.	11/01/1970	FGC2ASH
EULIMESTOR1	Storage device for lime used to stabilize residuals hauled to landfill. Emissions are controlled by a pulse jet baghouse.	11/01/1983 / 05/12/2005	FGLIMESTORAGE
EULIMESTOR2	Storage device for lime used to stabilize residuals hauled to landfill. Emissions are controlled by a pulse jet baghouse.	11/01/1983 / 05/12/2005	FGLIMESTORAGE
EULIMESTOR3	Storage device for lime used to stabilize residuals hauled to landfill. Emissions are controlled by a pulse jet baghouse.	11/1/1983 / 05/12/2005	FGLIMESTORAGE
EUGEN-D1A	Caterpillar Model 3512 diesel-fired emergency generator, rated at 1,500kW.	06/01/2007	FGENGINES, FCIENGINES
EUGEN-D1B	Caterpillar Model 3512 diesel-fired emergency generator, rated at 1,500kW.	06/01/2007	FGENGINES, FGCIENGINES
EUGEN-D2	Caterpillar Model 3508 diesel-fired emergency generator, rated at 1,000kW.	06/01/2007	FGENGINES, FGCIENGINES
EUGEN-D4	Caterpillar Model C32 diesel-fired emergency generator, rated at 1,000kW.	06/01/2007	FGENGINES, FGCIENGINES
EUGEN-D5	Caterpillar Model C15 diesel-fired emergency generator, rated at 400kW.	06/01/2007	FGENGINES, FGCIENGINES
EUGEN-D6	Caterpillar Model 1103C-33G1 diesel-fired emergency generator, rated at 20kW.	06/01/2007	FGENGINES, FGCIENGINES

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUGEN-G1	Caterpillar Model G3406 NA natural gas-fired emergency generator, rated at 150kW.	06/01/2007	FGENGINES
EUGEN-G2	Caterpillar Model G3406 NA natural gas-fired emergency generator, rated at 150kW.	06/01/2007	FGENGINES
EUGEN-G3	Ford Model G30F3 natural gas-fired emergency generator, rated at 30kW.	06/01/2007	FGENGINES
EUGEN-G4	Ford Model G20F3 natural gas-fired emergency generator, rated at 20kW.	06/01/2007	FGENGINES
EUGEN-G5	Ford Model G30F3 natural gas-fired emergency generator, rated at 30kW.	06/01/2007	FGENGINES
EUGEN-G6	Ford Model G20F3 natural gas-fired emergency generator, rated at 20kW.	06/01/2007	FGENGINES
EUGEN-G8	Ford Model G40F3 natural gas-fired emergency generator, rated at 30kW.	06/01/2007	FGENGINES
EUGEN-G9	Ford Model G20F3 natural gas-fired emergency generator, rated at 20kW.	06/01/2007	FGENGINES
EUGEN-G10	Caterpillar Model G3516 LE natural gas-fired emergency generator, rated at 1,040kW.	06/01/2007	FGENGINES
EUGEN-P1	Portable diesel-fired emergency generator, rated at 70kW.	06/01/2007	FGENGINES, FGCIENGINES
EUGEN-P2	Portable diesel-fired emergency generator, rated at 70kW.	06/01/2007	FGENGINES, FGCIENGINES
EUBOILER7	A natural gas-fired boiler with a heat input capacity of 16.24 MMBTU/hr. This boiler is identified as Boiler #6.	01/01/2004	FGNSPSBOILERS
EUBOILER8	A natural gas-fired boiler with a heat input capacity of 16.24 MMBTU/hr. This boiler is identified as Boiler #7.	01/01/2004	FGNSPSBOILERS
EUBOILER9	A natural gas-fired boiler with a heat input capacity of 16.24 MMBTU/hr. This boiler is identified as Boiler #8.	01/01/2004	FGNSPSBOILERS
EUBOILER10	A natural gas-fired boiler with a heat input capacity of 10 MMBTU/hr. This boiler is identified as Boiler #9.	01/01/2000	FGNSPSBOILERS

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EULIMEPAD	The old sludge/lime mixing facility and the Lime Pad have been replaced with indoor Central Offloading Facility (COF) and a new outdoor Lime Pad facility. Belt conveyors transfer sludge cake from Complex 1 and Complex 2 dewatering units to three holding tanks and the cake is then transferred to three cake mixers where lime from three silos are added by gravity to mixers. All the cake mixers are connected to a scrubber, where any residual dust and gases are scrubbed. The mixture is dropped directly into trucks for transport to a landfill. Occasionally, the mixture of cake and lime is dropped into the Lime Pad area, where scum or ash is added and mixed with front loaders. Lime Pad is an outdoor three-sided concrete/steel mixing area used to prepare residuals for disposal in a sanitary landfill. The mixture is allowed to stabilize, then loaded into trucks for transport to a landfill.	10/01/1983 / 05/12/2005	NA
EUDryerTrainA	Biosolids dryer train consisting of a triple-pass rotary natural gas-fired dryer equipped with a low-NO_X burner and exhaust recirculation, a cyclone product collector, a vibrating screener, a recycle bin, and a crusher. Emissions from the dryer train's cyclone exhaust through a three-stage impingement tray scrubber followed by a regenerative thermal oxidizer. Emissions from the recycle bin are controlled with a fabric filter collector.	11/01/2013	FGDryerTrains, FGDryerFacility, FG2013Project
EUDryerTrainB	Biosolids dryer train consisting of a triple-pass rotary natural gas-fired dryer equipped with a low-NO_X burner and exhaust recirculation, a cyclone product collector, a vibrating screener, a recycle bin, and a crusher. Emissions from the dryer train's cyclone exhaust through a three-stage impingement tray scrubber followed by a regenerative thermal oxidizer. Emissions from the recycle bin are controlled with a fabric filter collector.	11/01/2013	FGDryerTrains, FGDryerFacility, FG2013Project
EUDryerTrainC	Biosolids dryer train consisting of a triple-pass rotary natural gas-fired dryer equipped with a low-NO_X burner and exhaust recirculation, a cyclone product collector, a vibrating screener, a recycle bin, and a crusher. Emissions from the dryer train's cyclone exhaust through a three-stage impingement tray scrubber followed by a regenerative thermal oxidizer. Emissions from the recycle bin are controlled with a fabric filter collector.	11/01/2013	FGDryerTrains, FGDryerFacility, FG2013Project

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUDryerTrainD	Biosolids dryer train consisting of a triple-pass rotary natural gas-fired dryer equipped with a low-NO_X burner and exhaust recirculation, a cyclone product collector, a vibrating screener, a recycle bin, and a crusher. Emissions from the dryer train's cyclone exhaust through a three-stage impingement tray scrubber followed by a regenerative thermal oxidizer. Emissions from the recycle bin are controlled with a fabric filter collector.	11/01/2013	FGDryerTrains, FGDryerFacility, FG2013Project
EUSolidsSilo1	Storage silo for dried biosolids product, with approximate capacity of 800 dry tons.	11/01/2013	FGDryerFacility, FG2013Project
EUSolidsSilo2	Storage silo for dried biosolids product, with approximate capacity of 800 dry tons.	11/01/2013	FGDryerFacility, FG2013Project
EUSolidsSilo3	Storage silo for dried biosolids product, with approximate capacity of 800 dry tons.	11/01/2013	FGDryerFacility, FG2013Project
EUSolidsSilo4	Storage silo for dried biosolids product, with approximate capacity of 800 dry tons.	11/01/2013	FGDryerFacility, FG2013Project
EUWaterHeater	Provides hot water for the biosolids drying facility. Heat input duty approximately 0.15 MMBTU/hr.	11/01/2013	FGDryerFacility, FG2013Project
EUAirHandling	Provides comfort heat for office and shop area of the biosolids drying facility. Heat input duty approximately 0.80 MMBTU/hr.	11/01/2013	FGDryerFacility, FG2013Project
EUMakeUpAir	The four make-up air units provide comfort heat for the process area of the biosolids drying facility. Heat input duty approximately 5.121 MMBTU/hr per unit.	11/01/2013	FGDryerFacility, FG2013Project

EULIMEPAD
EMISSION UNIT CONDITIONS

DESCRIPTION

The old sludge/lime mixing facility and the Lime Pad have been replaced with indoor Central Offloading Facility (COF) and a new outdoor Lime Pad facility. Belt conveyors transfer sludge cake from Complex 1 and Complex 2 dewatering units to three holding tanks and the cake is then transferred to three cake mixers where lime from three silos are added by gravity to mixers. All the cake mixers are connected to a scrubber, where any residual dust and gases are scrubbed. The mixture is dropped directly into trucks for transport to a landfill. Occasionally, the mixture of cake and lime is dropped into the Lime Pad area, where scum or ash is added and mixed with front loaders. Lime Pad is an outdoor three-sided concrete/steel mixing area used to prepare residuals for disposal in a sanitary landfill. The mixture is allowed to stabilize, then loaded into trucks for transport to a landfill.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

See Appendix 5

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

1. All trucks hauling away sludge or blended sludge off site from facility shall have their wheels cleaned after the trucks are loaded, so as to prevent sludge trackout off of plant property. **(R336.1213(3))**

2. All unstabilized and blended sludge conveyors and conveyor transfer points shall be inspected once per operating shift for spillage, and any spill shall be cleaned up during that operating shift. Such inspections shall be logged including date of inspection, time of inspection, name of person performing such inspections, conditions observed with respect to spillage, and actions taken. Such logs shall be made available to the Division upon request. **(R336.1213(3))**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

D. FLEXIBLE GROUP CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGC1ASH	Three ash conveying and storage systems for conveying ash from the Complex 1 sludge incinerators and storing it prior to transport to sanitary landfill.	EUC1ASH01, EUC1ASH02, EUC1ASH03
FGC2ASH	Two ash conveying and storage systems for conveying ash from the Complex 2 sludge incinerators and storing it prior to transport to sanitary landfill.	EUC2ASH01, EUC2ASH02
FGCOMPLEX1	Incineration Complex 1, which consists of five (5) sewage sludge incinerators, each with a venturi scrubber followed by an impingement type wet scrubber and mist eliminator.	EUINC01, EUINC03, EUINC04, EUINC05, EUINC06
FGCOMPLEX2	This flexible group covers the Complex 2 incinerators before the air quality control improvements. It consists of eight (8) multiple hearth sewage sludge incinerators, each with an impingement tray wet scrubber followed by a venturi scrubber and a mist eliminator.	EUINC07, EUINC08, EUINC09, EUINC10, EUINC11, EUINC12, EUINC13, EUINC14
FGLIMESTORAGE	This flexible group includes the storage devices for lime that is used to stabilize residuals hauled to landfill.	EGLIMESTOR1, EGLIMESTOR2, EGLIMESTOR3
FGENGINES	Seventeen (17) emergency generators.	EUGEN-D1A, EUGEN-D1B, EUGEN-D2, EUGEN-D4, EUGEN-D5, EUGEN-D6, EUGEN-G1, EUGEN-G2, EUGEN-G3, EUGEN-G4, EUGEN-G5, EUGEN-G6, EUGEN-G8, EUGEN-G9, EUGEN-G10, EUGEN-P1, EUGEN-P2
FGCIENGINES	Five (5) compression ignition, diesel-fired engines that are subject to specific provisions of the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60, Subpart IIII).	EUGEN-D1A, EUGEN-D1B, EUGEN-D2, EUGEN-D5, EUGEN-D6
FGNSPSBOILERS	Four (4) small boilers that are subject to the requirement in NSPS Subpart Dc to track fuel usage rates.	EUBOILER7, EUBOILER8, EUBOILER9, EUBOILER10

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGCOLDCLEANERS	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.	
FGAQCI	This flexible group covers the Complex 2 incinerators for which the air quality control improvements (AQCI) have been completed. When the AQCI have been completed, it will consist of eight (8) multiple hearth sewage sludge incinerators, each with a venturi scrubber followed by an impingement tray wet scrubber and a mist eliminator.	EUINC07, EUINC08, EUINC09, EUINC10, EUINC11, EUINC12, EUINC13, EUINC14
FG4M-INCIN	This flexible group covers all sewage sludge incinerators subject to 40 CFR Part 60, Subpart MMMM. The conditions for this flexible group take effect on and after the effective date of Subpart MMMM: March 21, 2016.	EUINC07, EUINC08, EUINC09, EUINC10, EUINC11, EUINC12, EUINC13, EUINC14
FGDryerTrains	This flexible group covers all four dryer trains in the biosolids drying facility.	EUDryerTrainA, EUDryerTrainB, EUDryerTrainC, EUDryerTrainD
FGDryerFacility	This flexible group covers the entire biosolids drying facility. In addition to the dryer trains, the storage silos, and the biosolids drying facility roadways, it includes the following equipment inside the building to prepare feed to the dryer trains: eight sludge grinders (two for each dryer train), eight electrically-powered dewatering centrifuges (two for each dryer train), a cake bin and enclosed pug mill for each dryer train, and conveyors to transfer materials. The facility also has a hot water heater, an air handling unit, and make-up air units for the building, all natural gas-fired. All process area building ventilation exhaust is routed through four alkaline hypochlorite scrubbers.	EUDryerTrainA, EUDryerTrainB, EUDryerTrainC, EUDryerTrainD, EUSolidsSilo1, EUSolidsSilo2, EUSolidsSilo3, EUSolidsSilo4, EUWaterHeater, EUAirHandling, EUMakeUpAir
FG2013Project	This flexible group covers all the upgraded incinerators and the biosolids drying facility. It addresses the emissions of the overall project, which consists of the incinerator upgrades and the biosolids drying facility.	EUINC07, EUINC08, EUINC09, EUINC10, EUINC11, EUINC12, EUINC13, EUINC14, EUDryerTrainA, EUDryerTrainB, EUDryerTrainC, EUDryerTrainD, EUSolidsSilo1, EUSolidsSilo2, EUSolidsSilo3, EUSolidsSilo4, EUWaterHeater, EUAirHandling, EUMakeUpAir

FGC1ASH
FLEXIBLE GROUP CONDITIONS

DESCRIPTION
Three ash conveying and storage systems for conveying ash from the Complex 1 sludge incinerators and storing it prior to transport to sanitary landfill.

Emission Units: EUC1ASH01, EUC1ASH02, EUC1ASH03

POLLUTION CONTROL EQUIPMENT
Fabric filters

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate Matter	0.2 pounds per 1,000 pounds exhaust air	As determined by the average of three one hour test runs.	FGC1ASH	V.1, VI.1	R336.1331(3)
2. Visible emissions	Presence of visible emissions for no more than 5 percent of the hourly observation period [3]	Three one hour observation periods	FGC1ASH	VI.1	40 CFR Part 60, Subpart MMMM

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The pressure drop across each baghouse shall not exceed 10 inches of water. **(R336.1213(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING
Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall conduct emission tests to demonstrate initial compliance with the emission limits and standards for fugitive emissions from ash handling operations. The emission test must be conducted using the test methods, averaging methods and minimum sampling volumes or durations specified in Table 2 or 3 of 40 CFR Part 60, Subpart MMMM, and according to the testing, monitoring and calibration requirements specified in 40 CFR 60.5220(a). The permittee may use results from a performance test conducted within the two previous years that was conducted under the same conditions and demonstrated compliance with the emission

limits and standards specified in the Emission Limits section of this Flexible Group, provided that no process changes have been made since the performance test was conducted. If the results of a past performance test are used, the permittee must continue to meet the operating limits established during that performance test that demonstrated compliance with the applicable emission limits. The past performance test must have used the same test methods specified in Table 2 or 3 of 40 CFR Part 60 Subpart MMMM. Not less than 30 days prior to the anticipated test date, a complete stack testing plan shall be submitted to the AQD District Supervisor for approval.[3] **(40 CFR 60.5185(a))**

2. The permittee shall have the option of demonstrating continuous compliance with the emission limits and standards for fugitive emissions from ash handling operations using a performance test. If the permittee elects to choose the option of performance testing to demonstrate initial and continuous compliance with the emission limits for the pollutants previously listed, performance tests shall be conducted on an annual basis for each pollutant (between 11 and 13 calendar months following the previous performance test), except as provided in 40 CFR 60.5205(a)(3) and (e). The performance tests must be conducted using the test methods, averaging methods and minimum sampling volumes or durations specified in Table 2 or 3 of 40 CFR Part 60, Subpart MMMM, and according to the testing, monitoring and calibration requirements specified in 40 CFR 60.5220(a). Not less than 30 days prior to the anticipated test date, a complete stack testing plan shall be submitted to the AQD District Supervisor for approval. The permittee may elect to choose, in lieu of performance testing, to demonstrate continuous compliance with the emission limit using a continuous emissions monitoring system as described in 40 CFR 60.5205(b).[3] **(40 CFR 60.5205(a) and (b))**

See Appendix 5

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall comply with the following conditions while operating any ash silo in FGC1ASH:

   a. The permittee shall monitor and record, on a daily basis, the pressure drop across the baghouse serving the ash silo operation.

   b. The permittee shall perform and record, on a daily basis, a visible emissions observation to determine the presence or absence of visible emissions. This may be performed by either a certified or non-certified reader.

   c. If visible emissions are observed, it should be recorded along with the corrective action.

   d. The permittee shall perform and record a visible emission observations utilizing Method 22 to determine the presence or absence of visible emissions. The visible emissions observations shall consist of three one hour observation periods. This Method 22 visible emissions observation shall be performed as part of the initial compliance testing for FGCOMPLEX1.[3]

   (R336.1213(3), 40 CFR Part 60, Subpart MMMM)

2. The permittee shall develop and submit a site-specific monitoring plan for the ash handling system.[3] **(40 CFR 60.5200)**

See Appendices 3 and 4

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV1ASH01	12 [2]	122.5 [2]	R336.1201(1)
2. SV1ASH02	12 [2]	122.5 [2]	R336.1201(1)
3. SV1ASH03	12 [2]	122.5 [2]	R336.1201(1)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).
[3]This condition is future applicable. The date of future applicability is based upon the date of approval of the State Plan, and will be the earlier of (1) March 15, 2016, or (2) three years after the effective date of State Plan approval.

FGC2ASH
FLEXIBLE GROUP CONDITIONS

DESCRIPTION
Two ash conveying and storage systems for conveying ash from the Complex 2 sludge incinerators and storing it prior to transport to sanitary landfill.

Emission Units: EUC2ASH01, EUC2ASH02

POLLUTION CONTROL EQUIPMENT
Fabric filters

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate Matter	0.2 pounds per 1,000 pounds of exhaust air	As determined by the average of three one hour test runs.	FGC2ASH	V.1, VI.1	R336.1331(3)
2. Visible emissions	Presence of visible emissions for no more than 5 percent of the hourly observation period [3]	Three one hour observation periods	FGC1ASH	VI.1	40 CFR Part 60, Subpart MMMM

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The pressure drop across each baghouse shall not exceed 10 inches of water. **(R336.1213(2))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. NA

V. TESTING/SAMPLING
Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall conduct emission tests to demonstrate initial compliance with the emission limits and standards for fugitive emissions from ash handling operations. The emission test must be conducted using the test methods, averaging methods and minimum sampling volumes or durations specified in Table 2 or 3 of 40 CFR Part 60, Subpart MMMM, and according to the testing, monitoring and calibration requirements specified in 40 CFR 60.5220(a). The permittee may use results from a performance test conducted within the two

previous years that was conducted under the same conditions and demonstrated compliance with the emission limits and standards specified in the Emission Limits section of this Flexible Group, provided that no process changes have been made since the performance test was conducted. If the results of a past performance test are used, the permittee must continue to meet the operating limits established during that performance test that demonstrated compliance with the applicable emission limits. The past performance test must have used the same test methods specified in Table 2 or 3 of 40 CFR Part 60 Subpart MMMM. Not less than 30 days prior to the anticipated test date, a complete stack testing plan shall be submitted to the AQD District Supervisor for approval.[3] **(40 CFR 60.5185(a))**

2. The permittee shall have the option of demonstrating continuous compliance with the emission limits and standards for fugitive emissions from ash handling operations using a performance test. If the permittee elects to choose the option of performance testing to demonstrate initial and continuous compliance with the emission limits for the pollutants previously listed, performance tests shall be conducted on an annual basis for each pollutant (between 11 and 13 calendar months following the previous performance test), except as provided in 40 CFR 60.5205(a)(3) and (e). The performance tests must be conducted using the test methods, averaging methods and minimum sampling volumes or durations specified in Table 2 or 3 of 40 CFR Part 60, Subpart MMMM, and according to the testing, monitoring and calibration requirements specified in 40 CFR 60.5220(a). Not less than 30 days prior to the anticipated test date, a complete stack testing plan shall be submitted to the AQD District Supervisor for approval. The permittee may elect to choose, in lieu of performance testing, to demonstrate continuous compliance with the emission limit using a continuous emissions monitoring system as described in 40 CFR 60.5205(b).[3] **(40 CFR 60.5205(a) and (b))**

See Appendix 5

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall comply with the following conditions while operating any ash silo in FGC2ASH:

   a. The permittee shall monitor and record, on a daily basis, the pressure drop across the baghouse serving the ash silo operation.

   b. The permittee shall perform and record, on a daily basis, a visible emissions observation to determine the presence or absence of visible emissions. This may be performed by either a certified or non-certified reader.

   c. If visible emissions are observed, it should be recorded along with the corrective action.

   d. The permittee shall perform and record a visible emission observations utilizing Method 22 to determine the presence or absence of visible emissions. The visible emissions observations shall consist of three one hour observation periods. This Method 22 visible emissions observation shall be performed as part of the initial compliance testing for FGCOMPLEX2.[3]
   (R336.1213(3), 40 CFR Part 60, Subpart MMMM)

2. The permittee shall develop and submit a site-specific monitoring plan for the ash handling system.[3] **(40 CFR 60.5200)**

See Appendices 3 and 4

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVC2ASH1	20 [2]	119.5 [2]	R336.1201(1)
2. SVC2ASH2	20 [2]	119.5 [2]	R336.1201(1)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).
[3]This condition is future applicable. The date of future applicability is based upon the date of approval of the State Plan, and will be the earlier of (1) March 15, 2016, or (2) three years after the effective date of State Plan approval.

FGCOMPLEX1
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Five (5) sewage sludge incinerators, each with a venturi scrubber followed by an impingement type wet scrubber and mist eliminator.

Emission Units: EUINC01, EUINC02, EUINC03, EUINC04, EUINC05, EUINC06

POLLUTION CONTROL EQUIPMENT

Emissions from the incinerators are controlled by a venturi scrubber followed by an impingement type wet scrubber and mist eliminator.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate Matter	80 milligrams per dry standard cubic meter[3]	Average of three test runs (a minimum of 0.75 dry standard cubic meters collected per test run).	FGCOMPLEX1	V.1, VI.7 – VI.13	40 CFR Part 60, Subpart MMMM (§60.5165)
2. Hydrogen chloride	1.2 part per million, dry volume[3]	Average of three test runs (for Method 26, collect a minimum volume of 200 liters per run. For Method 26A, collect a minimum volume of 1 dry standard cubic meters per test run).	FGCOMPLEX1	V.1, VI.7 – VI.13	40 CFR Part 60, Subpart MMMM (§60.5165)
3. Carbon monoxide	3,800 parts per million, dry volume[3]	Average of three test runs (collect sample for a minimum duration of one hour per run).	FGCOMPLEX1	V.1,VI.3, VI.4	40 CFR Part 60, Subpart MMMM (§60.5165)
4. Dioxins/furans (total mass basis) [a]	5.0 nanograms per dry standard cubic meter[3]	Average of three test runs (a minimum of 1 dry standard cubic meters collected per test run).	FGCOMPLEX1	V.1	40 CFR Part 60, Subpart MMMM (§60.5165)
5. Dioxins/furans (toxic equivalency basis) [a]	0.32 nanograms per dry standard cubic meter[3]	Average of three test runs (a minimum of 1 dry standard cubic meters collected per test run).	FGCOMPLEX1	V.1	40 CFR Part 60, Subpart MMMM (§60.5165)
6. Mercury	0.28 milligrams per dry standard cubic meter[3]	Average of three test runs (for Method 29 and ASTM D6784-02, collect a minimum volume of 1 dry standard cubic meters per run. For Method 30B, collect a minimum sample as specified in method 30B at 40 CFR Part 60, appendix A-8).	FGCOMPLEX1	V.1	40 CFR Part 60, Subpart MMMM (§60.5165)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
7. Oxides of nitrogen	220 parts per million, dry volume[3]	Average of three test runs (collect sample for a minimum duration of one hour per run).	FGCOMPLEX1	V.1, VI.3, VI.4	40 CFR Part 60, Subpart MMMM (§60.5165)
8. Sulfur Dioxide	26 part per million, dry volume[3]	Average of three test runs (for Method 6, collect a minimum volume of 200 liters per run. For Method 6C, collect sample for a minimum duration of one hour per run).	FGCOMPLEX1	V.1, VI.7 – VI.13	40 CFR Part 60, Subpart MMMM (§60.5165)
9. Cadmium	0.095 milligrams per dry standard cubic meter[3]	Average of three test runs (a minimum of 1 dry standard cubic meters collected per test run).	FGCOMPLEX1	V.1, VI.7 – VI.13	40 CFR Part 60, Subpart MMMM (§60.5165)
10. Lead	0.30 milligrams per dry standard cubic meter[3]	Average of three test runs (a minimum of 1 dry standard cubic meters collected per test run).	FGCOMPLEX1	V.1, VI.7 – VI.13	40 CFR Part 60, Subpart MMMM (§60.5165)

* All emission limits are measured at 7 percent oxygen, dry basis at standard conditions.

The emission limits and standards apply at all times any of the emission units addressed by FGCOMPLEX1 are operating and during periods of malfunction. The emission limits and standards apply to emissions from a bypass stack or vent while sewage sludge is in the combustion chamber (i.e. until the sewage sludge feed to the combustor has been cut off for a period of time not less than the sewage sludge incineration residence time).

[a] The permittee has the option to comply with either the dioxin/furan limit on a total mass basis or the dioxin/furan emission limit on a toxic equivalency basis.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the incinerators in FGCOMPLEX1 unless the venturi/impingement tray wet scrubbers and mist eliminators are installed and operating properly. Such control equipment shall be maintained in good repair and operated in such a manner as to ensure compliance with emission requirements and visible emission requirement.[2] **(R336.1201(3)), (R336.1910)**

2. The permittee shall operate the incinerators in FGCOMPLEX1 such that hearth #1 burners will maintain a combustion temperature between 1100°F and 1500°F, based on a 24-hour block average, unless it can be demonstrated that an alternative operating range can be used to achieve compliance with particulate matter and opacity limits. **(R336.1213(3))**

3. The pressure drop across the venturi-impingement tray scrubber shall not be less than 18 inches of water column, based on an 8-hour block average. **(R336.1910), (R336.1213(3))**

4. Use of the bypass stack associated with an incinerator in FGCOMPLEX1 at any time that sewage sludge is being charged to that incinerator is an emissions standards deviation for all of the pollutants listed in Special Conditions I.1 through I.10.[3] **(40 CFR 60.5220(d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall conduct an air pollution control device inspection, in accordance with 40 CFR 60.5220(c), by the compliance date of 40 CFR Part 60, Subpart MMMM. The inspection shall include, at a minimum[3]:
   a. Inspect air pollution control device(s) for proper operation;
   b. Generally observe that the equipment is maintained in good operating condition;
   c. Develop a site-specific monitoring plan according to the requirements of 40 CFR 60.5200.
   (40 CFR 60.5195, 40 CFR 60.5220)

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall have the option of conducting emission tests to demonstrate initial compliance with the emission limits and standards for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans (total mass or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, and lead. If the permittee chooses the option of performing emission tests, then the emission tests must be conducted using the test methods, averaging methods and minimum sampling volumes or durations specified in Table 2 or 3 of 40 CFR Part 60, Subpart MMMM, and according to the testing, monitoring and calibration requirements specified in 40 CFR 60.5220(a). The permittee may use results from a performance test conducted within the two previous years that was conducted under the same conditions and demonstrated compliance with the emission limits and standards specified in the Emission Limits section of this Flexible Group, provided that no process changes have been made since the performance test was conducted. If the results of a past performance test are used, the permittee must continue to meet the operating limits established during that performance test that demonstrated compliance with the applicable emission limits. The past performance test must have used the same test methods specified in Table 2 or 3 of 40 CFR Part 60 Subpart MMMM. Not less than 30 days prior to the anticipated test date, a complete stack testing plan shall be submitted to the AQD District Supervisor for approval.[3] **(40 CFR 60.5185(a))**

2. In lieu of conducting the emissions test specified in Special Condition V.1, the permittee may elect to demonstrate initial compliance with the emission limits for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans, mercury, nitrogen oxides, sulfur dioxide, cadmium and lead by substituting the use of a continuous emission monitoring system for any or all of these pollutants in accordance with the requirements of 40 CFR 60.5185(b).[3] **(40 CFR 60.5185(b))**

3. The permittee shall have the option of demonstrating continuous compliance with the emission limits and standards for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans (total mass or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium and lead using a performance test. If the permittee elects to choose the option of performance testing to demonstrate initial and continuous compliance with the emission limits for the pollutants previously listed, performance tests shall be conducted on an annual basis for each pollutant (between 11 and 13 calendar months following the previous performance test), except as provide in 40 CFR 60.5205(a)(3) and (e). The performance tests must be conducted using the test methods, averaging methods and minimum sampling volumes or durations specified in Table 2 or 3 of 40 CFR Part 60, Subpart MMMM, and according to the testing, monitoring and calibration requirements specified in 40 CFR 60.5220(a). Not less than 30 days prior to the anticipated test date, a complete stack testing plan shall be submitted to the AQD District Supervisor for approval.[3] **(40 CFR 60.5205(a))**

4. In lieu of conducting the performance tests specified in Special Condition V.3, the permittee may elect to demonstrate continuous compliance with the emission limits for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans, mercury, nitrogen oxides, sulfur dioxide, cadmium and lead by substituting the use of a continuous emissions monitoring system for any or all of these pollutants in accordance with the requirements of 40 CFR 60.5205(b). A continuous automated sampling system can be used in lieu of performance tests to demonstrate continuous compliance with the mercury or dioxin/furans emission limits.[3] **(40 CFR 60.5205(b))**

5. The use of a bypass stack during a performance test invalidates the results of the performance test.[3] **(40 CFR 60.5220(d))**

See Appendix 5

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall monitor and record the sewage sludge feed rate to the incinerators in FGCOMPLEX1 on a continuous basis, and calculate the daily average sewage sludge feed to each incinerator in FGCOMPLEX1 for all hours of operation during each 24-hour period.[3] **(40 CFR 60.5170(f)(1))**

2. The permittee shall monitor and record the moisture content (as a weight percent) of the sewage sludge by taking a grab sample of the sewage sludge, on a daily basis, for the purpose of recording the range of moisture content. If the permittee takes more than one grab sample in a day, then the daily average moisture content for the number of grab samples taken shall be calculated.[3] **(40 CFR Part 60.5170(f)(2))**

3. The permittee shall monitor and record the combustion chamber temperature for each incinerator in FGCOMPLEX1 on a continuous basis. Measurements of the combustion chamber temperature shall be recorded every 15 minutes.[3] **(40 CFR 60.5170(a))**

4. The permittee shall establish a minimum combustion chamber operating temperature (or minimum afterburner temperature), equal to the lowest 4-hour average combustion chamber temperature (or afterburner temperature) measured during the most recent performance test demonstrating compliance with all applicable emission limits.[3] **(40 CFR 60.5190)**

5. The permittee shall develop and submit a site-specific monitoring plan for each continuous monitoring system required by 40 CFR Part 60 Subpart MMMM.[3] **(40 CFR 60.5200)**

6. Permittee shall monitor and record the opacity from FGCOMPLEX1, on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division and according to the monitoring requirements in 40 CFR Part 75.[2] **(R336.1213(3)), Consent Order MDEQ SIP No. 11-1993)**

7. Except during periods when an incinerator is out of service (in cold standby mode), the permittee shall conduct monthly inspections for the purpose of determining the operating condition of the scrubber, and, if necessary, the reasons for malfunction or failure, using monitoring and recordkeeping procedures outlined in Appendix 3 and 4. **(R336.1213(3))**

8. The permittee shall monitor and record, on a continuous basis, the pressure drop across the inlet and outlet of the scrubber serving any incinerator in operation. Measurements of the pressure drop shall be recorded every 15 minutes.[3] **(40 CFR 60.5190)**

9. The permittee shall establish a minimum pressure drop across each wet scrubber that is used to meet the particulate matter, lead and cadmium emission limits, equal to the lowest 4-hour average pressure drop across each scrubber measured during the most recent performance test demonstrating compliance with the particulate matter, lead and cadmium emission limits. The permittee is not required to establish the minimum pressure drop if a continuous monitoring system is used to demonstrate compliance with these emission limits.[3] **(40 CFR 60.5190)**

10. The permittee shall monitor and record, on a continuous basis, the liquid flow rate through the scrubber serving any incinerator in operation. Measurements of the scrubber liquid flow rate shall be recorded every 15 minutes.[3] **(40 CFR 60.5190)**

11. The permittee shall establish a minimum scrubber liquid flow rate (measured at the inlet to each wet scrubber), equal to the lowest 4-hour average liquid flow rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.[3] **(40 CFR 60.5190)**

12. The permittee shall monitor and record, on a continuous basis, the scrubber liquid pH. Measurements of the scrubber liquid pH shall be recorded every 15 minutes.[3] **(40 CFR 60.5190)**

13. The permittee shall establish a minimum scrubber liquid pH for each wet scrubber used to meet the sulfur dioxide or hydrogen chloride emission limits equal to the lowest 1-hour average scrubber liquid pH measured during the most recent performance test demonstrating compliance with these emission limits.[3] **(40 CFR 60.5190)**

14. The permittee shall monitor oxygen concentration for each operating incinerator. **(R336.1213(3))**

15. Except for periods when an incinerator is out of service (cold standby mode), the permittee shall conduct the preventative maintenance for the devices and with the frequency as indicated in Appendix 9. **(R336.1213(3))**

16. The permittee shall maintain hourly records of incinerator status, i.e. whether an incinerator is in service, on stand-by, pre-start up, start up, malfunctioning or out of service. **(R336.1213(3))**

See Appendices 3, 4 and 9

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBYPASS01/2	NA	NA	NA
2. SVSTUB01	NA	NA	NA
3. SVSTACK01	32[2]	254[2]	R336.1201(1)
4. SVSTUB02	NA	NA	NA
5. SVSTACK02	32[2]	254[2]	R336.1201(1)
6. SVBYPASS03/4	NA	NA	NA
7. SVSTUB03	NA	NA	NA
8. SVSTACK03	32[2]	254[2]	R336.1201(1)
9. SVSTUB04	NA	NA	NA
10. SVSTACK04	32[2]	254[2]	R336.1201(1)
11. SVBYPASS05/6	NA	NA	NA
12. SVSTUB05	NA	NA	NA
13. SVSTACK05	32[2]	254[2]	R336.1201(1)
14. SVSTUB06	NA	NA	NA
15. SVSTACK06	32[2]	254[2]	R336.1201(1)

IX. OTHER REQUIREMENT(S)

1. The permittee shall maintain the stack gas oxygen concentration monitoring systems and opacity monitoring systems. **(R336.1213(3))**

2. The permittee shall implement and comply with the Operator Training and Qualification provisions as specified in 40 CFR 60.5130 through 60.5160.[3] **(40 CFR 60.5130, 40 CFR 60.5135, 40 CFR 60.5140, 40 CFR 60.5145, 40 CFR 60.5150, 40 CFR 60.5155, 40 CFR 60.5160)**

3. The permittee must conduct an air pollution control device inspection according to 40 CFR 60.5220(c) by the final compliance date for 40 CFR Part 60 Subpart MMMM. For air pollution devices installed after the final compliance date, the permittee must conduct the air pollution control device inspection within 60 days after installation of the control device.[3] **(40 CFR 60.5195, 40 CFR 60.5220(c))**

4. Except during periods when an incinerator is out of service (in cold standby mode), the permittee shall implement a Malfunction Abatement Plan (MAP) and record incidents of high opacity and inappropriate hearth temperatures as well as corrective actions and updates to the MAP. The MAP dated March 22, 2007, or its most recent revision, shall be implemented. All maintenance activities regarding the MAP shall be recorded and made available to AQD upon request.[2]
(R336.1911, Consent Order No. 17-2006)

5. The permittee shall comply with all applicable provisions of the Standards of Performance for New Stationary Sources, as specified in 40 CFR Part 60, Subpart A and Subpart MMMM for Existing Sewage Sludge Incineration Units by the compliance date.[3] **(40 CFR Part 60, Subparts A and MMMM)**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).
[3]This condition is future applicable. The date of future applicability is based upon the date of approval of the State Plan, and will be the earlier of (1) March 15, 2016, or (2) three years after the effective date of State Plan approval.

FGCOMPLEX2
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This flexible group covers the Complex 2 incinerators before the air quality control improvements. It consists of eight (8) multiple hearth sewage sludge incinerators, each with an impingement tray wet scrubber followed by a venturi scrubber and a mist eliminator.

Emission Units: EUINC07, EUINC08, EUINC09, EUINC10, EUINC11, EUINC12, EUINC13, EUINC14

POLLUTION CONTROL EQUIPMENT

For each incinerator: an impingement type wet scrubber followed by a venturi scrubber and a mist eliminator.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.15 lb per 1,000 pounds of exhaust gases[2]	Test protocol*	Each incinerator in FGCOMPLEX2	GC 13	**R 336.1331(1)(c)**

*Test protocol shall specify averaging time.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the incinerators in FGCOMPLEX2 unless the venturi/impingement tray wet scrubbers and mist eliminators are installed and operating properly. Such control equipment shall be maintained in good repair and operated in such a manner as to ensure compliance with emission requirements and visible emission requirements.[2] **(R 336.1910)**

2. The permittee shall operate each incinerator in FGCOMPLEX2 such that hearth #1 burners will maintain a combustion temperature between 1100°F to 1500°F, based on a 24-hour block average, unless it can be demonstrated that an alternative operating range can be used to achieve compliance with particulate matter and opacity limits.[2] **(R 336.1910)**

3. The differential pressure drop across the scrubber train shall not be less than 18 inches of water column, based on an 8-hour block average.[2] **(R 336.1910)**

4. The permittee shall implement a Malfunction Abatement Plan (MAP) for each incinerator in FGCOMPLEX2, and shall record all updates to the MAP. The MAP dated March 22, 2007, or its most recent revision, shall be implemented.[2] **(R 336.1911, Consent Order No. 17-2006)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall maintain the stack gas oxygen concentration monitoring systems and opacity monitoring systems.[2] **(R 336.1911)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

See Appendix 5

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall monitor and record the opacity of emissions from each incinerator in FGCOMPLEX2, on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division and according to the monitoring requirements in 40 CFR Part 75. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(Consent Order MDNRE SIP No. 11-1993)**

2. The permittee shall conduct monthly inspections of each incinerator in FGCOMPLEX2, except during periods when the incinerator is out of service (in cold standby mode), for the purpose of determining the operating condition of the scrubber, and, if necessary, the reasons for malfunction or failure, using monitoring and recordkeeping procedures outlined in Appendices 3 and 4.[2] **(R 336.1910)**

3. The permittee shall monitor and record daily all of the following for each incinerator in FGCOMPLEX2, except during periods when the incinerator is out of service (in cold standby mode). The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2]
   a. Water flow rate through the associated scrubber train.
   b. Differential pressure across the inlet and outlet of each scrubber in the associated scrubber train.
   c. Hearth #1 combustion temperature
   (R 336.1910)

4. For each incinerator in FGCOMPLEX2, the permittee shall monitor and record the daily sludge feed rate, as wet tons per day, except during periods when there is no sludge in the incinerator. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(40 CFR 61.52)**

5. The permittee shall monitor oxygen concentration for each operating incinerator. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1911)**

6. Except for periods when an incinerator is out of service (cold standby mode), the permittee shall conduct the preventative maintenance for the devices and with the frequency as indicated in Appendix 9.[2] **(R 336.1910, R 336.1911)**

7. The permittee shall maintain hourly records of incinerator status, i.e. whether an incinerator is in service, on stand-by, pre-start up, start up, malfunctioning, or out of service. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1910, R 336.1911)**

8. For each incinerator in FGCOMPLEX2, the permittee shall keep a record of incidents of high opacity and inappropriate hearth temperature as well as corrective actions taken and shall make the record available to the AQD upon request.[2] **(R 336.1911, Consent Order No. 17-2006)**

9. For each incinerator in FGCOMPLEX2, the permittee shall keep a record of all maintenance activities regarding the MAP and shall make the record available to the AQD upon request.[2] **(R 336.1911, Consent Order No. 17-2006)**

See Appendices 3, 4 and 9

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVSTACK07	39[2]	254[2]	**R 336.1201(1)**
2. SVSTACK08	39[2]	254[2]	**R 336.1201(1)**
3. SVSTACK09	39[2]	254[2]	**R 336.1201(1)**
4. SVSTACK10	39[2]	254[2]	**R 336.1201(1)**
5. SVSTACK11	39[2]	254[2]	**R 336.1201(1)**
6. SVSTACK12	39[2]	254[2]	**R 336.1201(1)**
7. SVSTACK13	39[2]	254[2]	**R 336.1201(1)**
8. SVSTACK14	39[2]	254[2]	**R 336.1201(1)**

IX. OTHER REQUIREMENT(S)

1. Both of the following apply to each incinerator in FGCOMPLEX2, and to its scrubber train, when the incinerator commences trial operation after the air quality control improvements authorized by this Permit to Install have been completed for that incinerator[2]:
   a. The Special Conditions in FGAQCI become applicable requirements for that incinerator and its scrubber train.
   b. The Special Conditions in FGCOMPLEX2 cease to be applicable requirements for that incinerator and its scrubber train.

   (R 336.1201(3))

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGLIMESTORAGE
FLEXIBLE GROUP CONDITIONS

DESCRIPTION
This flexible group includes the storage devices for lime that is used to stabilize residuals hauled to landfill.

Emission Units: EULIMESTOR1, EULIMESTOR2, EULIMESTOR3

POLLUTION CONTROL EQUIPMENT
Pulse jet fabric filter baghouse.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate Matter	0.1 pounds per 1,000 pounds of exhaust air	As determined by the average of three one hour test runs.	FGLIMESTORAGE	VI.1 – VI.3	R336.1331(1)(c)
2. Visible Emissions	5% opacity	6 minute average	FGLIMESTORAGE	VI.3	R336.1301(1)(c)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING
Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

See Appendix 5

VI. MONITORING/RECORDKEEPING
Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. At least once a month, the permittee shall conduct regular inspections for the purpose of determining the operating condition of the baghouse, and, if necessary, the reasons for malfunction or failure, using monitoring and recordkeeping procedures outlined in Appendix 3 and 4. **(R336.1213(3))**

2. The permittee shall monitor and record the pressure drop across the baghouse during the lime loading. **(R336.1213(3))**

3. The permittee shall perform and record visible emission observations during daylight hours when lime is loaded into the silo to determine the presence or absence of visible emissions. If visible emission exceeds 5%, the permittee shall also record the corrective actions along with the visible emission reading. **(R336.1213(3))**

See Appendices 3 and 4

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVLIMESTOR1	10 [2]	85 [2]	R336.1201(1)
2. SVLIMESTOR2	10 [2]	85 [2]	R336.1201(1)
3. SVLIMESTOR3	10 [2]	85 [2]	R336.1201(1)

IX. OTHER REQUIREMENT(S)

1. The permittee shall repair or replace any defective parts discovered during the monthly preventive maintenance inspection or place unit out of service. **(R336.1213(3))**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGENGINES
FLEXIBLE GROUP CONDITIONS

DESCRIPTION
Seventeen emergency generators

Emission Unit: EUGEN-D1A, EUGEN-D1B, EUGEN-D2, EUGEN-D4, EUGEN-D5, EUGEN-D6, EUGEN-G1, EUGEN-G2, EUGEN-G3, EUGEN-G4, EUGEN-G5, EUGEN-G6, EUGEN-G8, EUGEN-G9, EUGEN-G10, EUGEN-P1, EUGEN-P2

POLLUTION CONTROL EQUIPMENT
NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NO_x	36 tons per year [2]	12 month rolling time period as determined at the end of each calendar month.	FGENGINES	III.2, VI.1, VI.3, VI.5	R336.1205

The NOx limit is based on the engine-specific emission factors listed in Appendix 7, or determined from emissions testing, whichever is greater.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The sulfur content of the diesel fuel used in any of the generators in FGENGINES shall not exceed 15 ppm (0.0015) percent by weight. **(R336.1205, R336.1402(1), 40 CFR 60.4207, 40 CFR 80.510(b))**

2. The permittee shall not operate FGENGINES for more than 500 hours each per 12-month rolling time period as determined at the end of each calendar month.[2] **(R336.1205, R336.1225, R336.1702(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING
Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING
Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall monitor in a satisfactory manner the hours of operation for FGENGINES on a monthly basis.[2] **(R336.1205, R336.1225, R336.1702(a))**

2. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. [2] **(R336.1205)**

3. The permittee shall keep, in a satisfactory manner, monthly and previous 12-month NO_x emission calculation records for FGENGINES, as required by Special Condition I.1. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. [2] **(R336.1205)**

4. The permittee shall keep records of the fuel oil sulfur content, in percent by weight, for each shipment of fuel oil received. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. [2] **(R336.1205)**

5. The permittee shall keep, in a satisfactory manner, a written log of the monthly hours of operation of FGENGINES. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. [2] **(R336.1205, R336.1225, R336.1702(a))**

See Appendix 7

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-D1A	8 [1]	13.2 [1]	R336.1225
2. SV-D1B	8 [1]	13.2 [1]	R336.1225
3. SV-D2	8 [1]	13.2 [1]	R336.1225
4. SV-D4	8 [1]	13.5 [1]	R336.1225
5. SV-D5	9 [1]	8.4 [1]	R336.1225
6. SV-D6	3 [1]	6 [1]	R336.1225
7. SV-P1	4 [1]	9 [1]	R336.1225
8. SV-P2	4 [1]	9 [1]	R336.1225
9. SV-G1	5 [1]	12 [1]	R336.1225
10. SV-G2	5 [1]	12 [1]	R336.1225
11. SV-G3	3.4 [1]	5.2 [1]	R336.1225
12. SV-G4	2.5 [1]	4.83 [1]	R336.1225
13. SV-G5	3.4 [1]	5.2 [1]	R336.1225
14. SV-G6	2.5 [1]	4.83 [1]	R336.1225
15. SV-G8	3.4 [1]	5.2 [1]	R336.1225
16. SV-G9	2.5 [1]	4.83 [1]	R336.1225
17. SV-G10	7.1 [1]	13.2 [1]	R336.1225

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subpart A, Subpart IIII and Subpart JJJJ, as they apply to the engines in FGENGINES. **(40 CFR Part 60 Subparts A, IIII & JJJJ)**

2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart ZZZZ, as they apply to the engines in FGENGINES. **(40 CFR Part 63 Subparts A and ZZZZ, 40 CFR 63.6595)**

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGCIENGINES
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Five (5) compression ignition, diesel-fired engines that are subject to specific provisions of the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60, Subpart IIII).

Emission Unit: EUGEN-D1A, EUGEN-D1B, EUGEN-D2, EUGEN-D5, EUGEN-D6

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NMHC + NO_x	9.5 g/KW-hr (7.1 g/hp-hr)	Hourly	EUGEN-D6	V.1, VI.2	40 CFR 60.4205(a)
2. HC	1.3 g/KW-hr (1.0 g/hp-hr)	Hourly	EUGEN-D5, EUGEN-D2	V.1, VI.2	40 CFR 60.4205(a)
3. NO_x	9.2 g/KW-hr (6.9 g/hp-hr)	Hourly	EUGEN-D5, EUGEN-D2	V.1, VI.2	40 CFR 60.4205(a)
4. NO_x	17.0 g/KW-hr (12.7 g/hp-hr) when the maximum test speed is less than 130 rpm; $45.0 \times N^{-0.20}$ when the maximum test speed is at least 130 but less than 2000 rpm (where N is the maximum test speed of the engine in rpm); 9.8 g/KW-hr (7.3 g/hp-hr) when the maximum test speed is 2000 rpm or more.	Hourly	EUGEN-D1A, EUGEN-D1B	V.1, VI.2	40 CFR 60.4205(a), 40 CFR 94.8(a)(1)
4. CO	11.4 g/KW-hr (8.5 g/hp-hr)	Hourly	EUGEN-D5, EUGEN-D2	V.1, VI.2	40 CFR 60.4205(a)
5. CO	5.5 g/KW-hr (0.41 g/hp-hr)	Hourly	EUGEN-D6	V.1, VI.2	40 CFR 60.4205(a)
6. PM	0.54 g/KW-hr (0.40 g/hp-hr)	Hourly	EUGEN-D5, EUGEN-D2	V.1, VI.2	40 CFR 60.4205(a)
7. PM	0.80 g/KW-hr (0.60 g/hp-hr)	Hourly	EUGEN-D6	V.1, VI.2	40 CFR 60.4205(a)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The sulfur content of the diesel fuel used in any of the engines in FGICENGINES shall not exceed 15 ppm (0.0015) percent by weight. **(R336.1205, R336.1402(1), 40 CFR 60.4207, 40 CFR 80.510(b))**

2. The permittee shall not operate FGCIENGINES for more than 500 hours each per 12-month rolling time period as determined at the end of each calendar month. The 500 hours includes the 100 hours for the purpose of necessary maintenance checks and readiness testing as described in SC III.3. **(R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

3. The permittee may operate the engines in FGICENGINES for no more than 100 hours per 12-month rolling time period as determined at the end of each calendar month for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per year. The engines in FGICENGINES may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply non-emergency power as part of a financial arrangement with another entity. **(40 CFR 60.4211(f))**

4. The permittee shall install, maintain, and operate each of the engines in FGICENGINES according to the manufacturer written instructions, or procedures developed by the owner/operator and approved by the engine manufacturer, over the entire life of the engine. **(R 336.1205(1)(a) & (3), R 336.1225, R 336.1911, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), 40 CFR 60.4206, 40 CFR 60.4211)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FGCIENGINES with non-resettable hours meters to track the operating hours. **(R 336.1205(1)(a) & (3), R 336.1225, 40 CFR 60.4209)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall conduct an initial performance test for the engines in FGCIENGINES within one year after startup of the engines to demonstrate compliance with the emission limits in 40 CFR 60.4205 unless the engines have been certified by the manufacturer and the permittee maintains the engine as required by 40 CFR Part 60 Subpart IIII. If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4212 (less than 30 liters) or 40 CFR 60.4213 (greater than 30 liters). No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(40 CFR 60.4211, 40 CFR 60.4212, 40 CFR Part 60 Subpart IIII)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1205(1)(a) & (3), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

2. The permittee shall keep, in a satisfactory manner, a record of testing required in SC V.1 or manufacturer certification documentation indicating that the engines in FGCIENGINES meet the applicable emission limitations contained in the federal Standards of Performance for New Stationary Sources 40 CFR Part 60 Subpart IIII. The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.4211)**

3. The permittee shall monitor and record the total hours of operation and the hours of operation during non-emergencies for the engines in FGCIENGINES, on a monthly and 12-month rolling time period basis, in a manner acceptable to the District Supervisor, Air Quality Division. The permittee shall document how many hours are spent for emergency operation of the engines in FGCIENGINES, including what classified the operation as emergency and how many hours are spent for non-emergency operation. **(R 336.1205(1)(a) & (3), 40 CFR 60.4211, 40 CFR 60.4214)**

4. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in the engines in FGCIENGINES, demonstrating that the fuel sulfur content meets the requirement of 40 CFR 80.510(b). The certification or test data shall include the name of the oil supplier or laboratory, and the sulfur content of the fuel oil. **(R 336.1205(1)(a) & (3), R 336.1402(1), 40 CFR 80.510(b))**

5. The permittee shall monitor and record in a satisfactory manner the diesel fuel usage rate for the engines in FGCIENGINES on a monthly and 12-month rolling time period basis. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

See Appendix 7

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-D1A	8 [1]	13.2 [1]	R336.1225
2. SV-D1B	8 [1]	13.2 [1]	R336.1225
3. SV-D2	8 [1]	13.2 [1]	R336.1225
4. SV-D5	9 [1]	8.4 [1]	R336.1225
5. SV-D6	3 [1]	6 [1]	R336.1225

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subpart A and Subpart IIII, as they apply to the engines in FGCIENGINES. **(40 CFR Part 60 Subparts A & IIII)**

2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart ZZZZ, as they apply to the engines in FGCIENGINES. **(40 CFR Part 63 Subparts A and ZZZZ, 40 CFR 63.6595)**

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGNSPSBOILERS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION
Four (4) small natural gas-fired boilers that are subject to the requirement in NSPS Subpart Dc to track fuel usage rates.

Emission Unit: EUBOILER7, EUBOILER8, EUBOILER9,EUBOILER10

POLLUTION CONTROL EQUIPMENT
NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only fire natural gas in the boilers that make up FGNSPSBOILERS. **(R336.1213(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING
Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING
Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall record and maintain records of natural gas usage in each boiler on a calendar month basis. In lieu of recording the actual fuel usage rates, the permittee may record potential fuel usage based on the maximum design capacity of a boiler. **(40 CFR 60.48c(g))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGCOLDCLEANERS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

Emission Unit: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall not use cleaning solvents containing more than five percent by weight of the following halogenated compounds: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination thereof. **(R 336.1213(2))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Cleaned parts shall be drained for no less than 15 seconds or until dripping ceases. **(R 336.1611(2)(b), R 336.1707(3)(b))**

2. The permittee shall perform routine maintenance on each cold cleaner as recommended by the manufacturer. **(R 336.1213(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The cold cleaner must meet one of the following design requirements:

   a. The air/vapor interface of the cold cleaner is no more than ten square feet. **(R 336.1281(h))**
   b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. **(R 336.1285(r)(iv))**

2. The cold cleaner shall be equipped with a device for draining cleaned parts. **(R 336.1611(2)(b), R 336.1707(3)(b))**

3. All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. **(R 336.1611(2)(a), R 336.1707(3)(a))**

4. The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. **(R 336.1707(3)(a))**

5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees fahrenheit, then the cold cleaner must comply with at least one of the following provisions:

   a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. **(R 336.1707(2)(a))**

b. The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0. **(R 336.1707(2)(b))**
c. The cold cleaner must be controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the AQD. **(R 336.1707(2)(c))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. For each new cold cleaner in which the solvent is heated, the solvent temperature shall be monitored and recorded at least once each calendar week during routine operating conditions. **(R 336.1213(3))**

2. The permittee shall maintain the following information on file for each cold cleaner: **(R 336.1213(3))**

   a. A serial number, model number, or other unique identifier for each cold cleaner.
   b. The date the unit was installed, manufactured or that it commenced operation.
   c. The air/vapor interface area for any unit claimed to be exempt under Rule 281(h).
   d. The applicable Rule 201 exemption.
   e. The Reid vapor pressure of each solvent used.
   f. If applicable, the option chosen to comply with Rule 707(2).

3. The permittee shall maintain written operating procedures for each cold cleaner. These written procedures shall be posted in an accessible, conspicuous location near each cold cleaner. **(R 336.1611(3), R 336.1707(4))**

4. As noted in Rule 611(2)(c) and Rule 707(3)(c), if applicable, an initial demonstration that the waste solvent is a safety hazard shall be made prior to storage in non-closed containers. If the waste solvent is a safety hazard and is stored in non-closed containers, verification that the waste solvent is disposed of so that not more than 20 percent, by weight, is allowed to evaporate into the atmosphere shall be made on a monthly basis. **(R 336.1213(3), R 336.1611(2)(c), R 336.1707(3)(c))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

FGAQCI
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This flexible group covers the Complex 2 incinerators for which the air quality control improvements (AQCI) have been completed. When the AQCI have been completed, it will consist of eight (8) multiple hearth sewage sludge incinerators, each with a venturi scrubber followed by an impingement tray wet scrubber and a mist eliminator.

Emission Unit: EUINC07, EUINC08, EUINC09, EUINC10, EUINC11, EUINC12, EUINC13, EUINC14

POLLUTION CONTROL EQUIPMENT

For each incinerator: a venturi scrubber followed by an impingement type wet scrubber and a mist eliminator.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Particulate Matter	80 milligrams per dry standard cubic meter [a 2]	Test protocol*	Each incinerator in FGAQCI	GC 13, SC V.1	**R 336.1331, R 336.2801(ee)**
2. PM2.5	1.20 lb/hr[2]	Test protocol*	Each incinerator in FGAQCI	GC 13, SC V.1	**R 336.2801(ee), 40 CFR 52.21(c) & (d)**
3. PM10	1.20 lb/hr[2]	Test protocol*	Each incinerator in FGAQCI	GC 13, SC V.1	**R 336.2801(ee), 40 CFR 52.21(c) & (d)**
4. Hydrogen chloride	1.2 ppmv dry [a 1]	Test protocol*	Each incinerator in FGAQCI	GC 13, SC V.1	**R 336.1224**
5. Carbon monoxide	3,800 ppmv dry [a]	Test protocol*	Each incinerator in FGAQCI	GC 13, SC V.1	**R 336.2801(ee), 40 CFR 52.21(d)**
6. VOC	3.20 lb/hr[2]	Test protocol*	Each incinerator in FGAQCI	GC 13, SC V.1	**R 336.2801(ee), R 336.1702(a)**
7. Dioxins/furans (total mass basis) [b, c]	5.0 nanograms per dry standard cubic meter [a, 1]	Test protocol*	Each incinerator in FGAQCI	GC 13, SC V.1	**R 336.1224**
8. Dioxins/furans (toxic equivalency basis) [b, c]	0.32 nanograms per dry standard cubic meter [a, 1]	Test protocol*	Each incinerator in FGAQCI	GC 13, SC V.1	**R 336.1224**
9. Mercury	0.28 milligrams per dry standard cubic meter [a, 1]	Test protocol*	Each incinerator in FGAQCI	GC 13, SC V.1	**R 336.1224**
10. Nitrogen oxides	220 ppmv dry [a 2]	Test protocol*	Each incinerator in FGAQCI	GC 13, SC V.1	**R 336.2801(ee), 40 CFR 52.21(c) & (d)**
11. Sulfur Dioxide	26 ppmv dry [a 2]	Test protocol*	Each incinerator in FGAQCI	GC 13, SC V.1	**R 336.2801(ee)**
12. H_2SO_4	1.3 lb/hr[2]	Test protocol*	Each incinerator in FGAQCI	GC 13, SC V.1	**R 336.1224, R 336.2801(ee) 40 CFR 52.21(b)(3)(i)**
13. Cadmium	0.095 milligrams per dry standard cubic meter [a, 1]	Test protocol*	Each incinerator in FGAQCI	GC 13, SC V.1	**R 336.1224, R 336.1225(2)**
14. Lead	0.30 milligrams per dry standard cubic meter [a 2]	Test protocol*	Each incinerator in FGAQCI	GC 13, SC V.1	**R 336.2801(ee), 40 CFR 52.21(d)**
15. Fluorides	1.73 lb/hr[2]	Test protocol*	Each incinerator in FGAQCI	GC 13, SC V.1	**R 336.2801(ee)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
16. PM	46.6 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGAQCI	SC VI.7	**R 336.1205(1), R 336.2801(ee)**
17. PM10	59.6 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGAQCI	SC VI.7	**R 336.1205(1), R 336.2801(ee)**
18. PM2.5	58.3 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGAQCI	SC VI.7	**R 336.1205(1), R 336.2801(ee), 40 CFR 52.21(b)(3)(i)**
19. CO	1,522.4 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGAQCI	SC VI.7	**R 336.1205(1), R 336.2801(ee)**
20. NO_X	663.4 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGAQCI	SC VI.7	**R 336.1205(1), R 336.2801(ee)**
21. SO_2	37.6 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGAQCI	SC VI.7	**R 336.1205(1), R 336.2801(ee)**
22. VOC	64.8 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGAQCI	SC VI.7	**R 336.1205(1), R 336.2801(ee)**
23. Lead	0.54 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGAQCI	SC VI.7	**R 336.1205(1), R 336.2801(ee)**
24. CO_2e	237,275 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGAQCI	SC VI.7	**R 336.1205(1), 40 CFR 52.21(b)(3)(i)**
25. H_2SO_4	25.9 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGAQCI	SC VI.7	**R 336.1205(1), R 336.2801(ee)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
26. Fluorides	35.0 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGAQCI	SC VI.7	**R 336.1205(1), R 336.2801(ee)**

[a] All emission limits are measured at 7 percent oxygen, dry basis, at standard conditions. For the emission limits in this table, standard conditions means a temperature of 68 °F (20 °C) and a pressure of 1 atmosphere (101.3 kilopascals).
[b] Dioxins/furans means tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans.
[c] The permittee has the option to comply with either the dioxin/furan limit on a total mass basis or the dioxin//furan emission limit on a toxic equivalency basis.
* Test protocol shall specify averaging time.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Total sludge feed	129,564 dry tons per year[2]	12-month rolling time period as determined at the end of each calendar month	FGAQCI	SC VI.6	**R 336.1205(1), R 336.1225(1), R 336.1225(2), R 336.2801(ee), 40 CFR 52.21(b)(3)(i)**
2. Total sludge feed	157,000 dry tons per year[a]	12-month rolling time period as determined at the end of each calendar month	EUINCIN01, EUINCIN03, EUINCIN04, EUINCIN05, EUINCIN06, EUINCIN07, EUINCIN08, EUINCIN09, EUINCIN10, EUINCIN11, EUINCIN12, EUINCIN13, EUINCIN14	SC VI.8	**R 336.1205(1), R 336.2801(ee), 40 CFR 52.21(b)(3)(i)**

[a] This requirement is terminated on and after March 21, 2016, or whenever EUINCIN01, EUINCIN02, EUINCIN03, EUINCIN04, EUINCIN05, and EUINCIN06 have all been permanently shut down, whichever comes first.

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate any incinerator in FGAQCI unless the associated venturi scrubber, impingement tray wet scrubber, and mist eliminator are installed, maintained, and operating in a satisfactory manner.[2] **(R 336.1224, R 336.1910)**

2. The permittee shall not feed sludge to any incinerator in FGAQCI unless the parameters listed below are within the ranges specified in the approved malfunction abatement plan (MAP), except for limited periods while attempting to restore a parameter to its specified range, as provided for in the approved MAP.[2]
   a. Water flow rate for each scrubber in the associated scrubber train.
   b. Differential pressure across the inlet and outlet of each scrubber in the associated scrubber train.
   c. Hearth #1 combustion temperature
   (R 336.1224, R 336.1702(a), R 336.1910)

3. The permittee shall not operate any incinerator in FGAQCI unless an update to the malfunction abatement plan (MAP) for the incineration process has been submitted within 180 days of commencing trial operation of the first incinerator in FGAQCI, and the updated MAP is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.[2] **(R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the parameters specified below for each incinerator in FGAQCI and its associated scrubber train.[2]
   a. Water flow rate for each scrubber in the associated scrubber train.
   b. Differential pressure across the inlet and outlet of each scrubber in the associated scrubber train.
   c. Hearth #1 combustion temperature
   (R 336.1224, R 336.1702(a), R 336.1910)

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the oxygen emissions for each incinerator in FGAQCI on a continuous basis.[2] **(R 336.1224, R 336.2801(ee), 40 CFR 52.21(b)(3)(i))**

3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the visible emissions from each incinerator in FGAQCI on a continuous basis.[2] **(R 336.1301)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. This condition applies to each pair of incinerators in FGAQCI for which this permit authorizes air quality control improvements. After the air quality control improvements have been completed for each pair of incinerators in FGAQCI, and within 180 days after commencement of trial operation of either incinerator in that pair of incinerators, the permittee shall verify PM, PM10, PM2.5, HCl, CO, VOC, dioxins/furans, mercury, NO_X, SO_2, H_2SO_4, cadmium, lead, and fluorides emission rates from one of the incinerators in the pair by testing at owner's expense, in accordance with Department requirements. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.[2] **(R 336.1224, R 336.1225, R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), 40 CFR 52.21(b)(3)(i), 40 CFR 52.21(c) & (d))**

See Appendix 5

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall continuously monitor and record, in a satisfactory manner, the oxygen emissions from each incinerator in FGAQCI. The permittee shall operate each Continuous Emission Monitoring System (CEMS) to meet the timelines, requirements and reporting detailed in Appendix B.[2] **(R 336.1224, R 336.2801(ee), 40 CFR 52.21(b)(3)(i))**

2. The permittee shall continuously monitor and record, in a satisfactory manner, the visible emissions from each incinerator in FGAQCI. The permittee shall operate each COM system to meet the timelines, requirements and reporting detailed in Appendix 3.3.C.[2] **(R 336.1301, Consent Order MDNRE SIP No. 11-1993)**

3. The permittee shall conduct periodic inspections of each incinerator in FGAQCI as provided in the approved MAP, except during periods when the incinerator is out of service (in cold standby mode). The permittee shall keep records of all inspections and actions taken in response to the inspections on file at the facility and make them available to the Department upon request.[2] **(R 336.1910, R 336.1911)**

4. The permittee shall monitor and record, in a satisfactory manner, all of the following for each incinerator in FGAQCI on a daily basis, except during periods when the incinerator is out of service (in cold standby mode). The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2]
   a. Water flow rate through the associated scrubber train.
   b. Differential pressure across the inlet and outlet of each scrubber in the associated scrubber train.
   c. Hearth #1 combustion temperature
   (R 336.1910)

5. The permittee shall monitor and record, in a satisfactory manner, all other parameters identified in the approved malfunction abatement plan for FGAQCI, at the frequency identified in the plan, except during periods when there is no sludge in the incinerator. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1911)**

6. For each incinerator in FGAQCI, the permittee shall monitor and record the daily sludge feed rate, as wet tons per day, except during periods when there is no sludge in the incinerator. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(40 CFR 61.52)**

7. The permittee shall calculate the emission rates of the pollutants listed below from FGAQCI monthly, both for the calendar month and for the 12-month rolling time period ending that month, using a method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1205(1), R 336.2801(ee), 40 CFR 52.21(b)(3)(i))**
   a. PM
   b. PM10
   c. PM2.5
   d. CO
   e. NO_X
   f. SO_2
   g. VOC
   h. Lead
   i. CO_2e
   j. H_2SO_4
   k. Fluorides

8. For each incinerator in FGAQCI and for FGCOMPLEX2, EUINCIN01, EUINCIN03, EUINCIN04, EUINCIN05, and EUINCIN06, the permittee shall monitor and record the sludge feed rate for each calendar month and for the 12-month rolling time period ending that month, as dry tons per month, except during periods when there is no sludge in the incinerator. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1205(1), R 336.2801(ee), 40 CFR 52.21(b)(3)(i))**

See Appendices 3 and 4

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install for each incinerator in FGAQCI, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of the incinerator as part of FGAQCI.[2] **(R 336.1201(7)(a))**

5. No later than the date that the permittee permanently ceases operating EUINCIN02, the permittee or the authorized agent pursuant to Rule 204 shall submit a closure notification, including the date of closure, to the AQD District Supervisor. For this condition, "permanently ceases operating" means that the unit has ceased operating and that the permittee has decided to not restart it.[2] **(40 CFR 60.5125)**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVSTACK07	39[2]	254[2]	**R 336.1225, 40 CFR 52.21(c) & (d)**
2. SVSTACK08	39[2]	254[2]	**R 336.1225, 40 CFR 52.21(c) & (d)**
3. SVSTACK09	39[2]	254[2]	**R 336.1225, 40 CFR 52.21(c) & (d)**
4. SVSTACK10	39[2]	254[2]	**R 336.1225, 40 CFR 52.21(c) & (d)**
5. SVSTACK11	39[2]	254[2]	**R 336.1225, 40 CFR 52.21(c) & (d)**
6. SVSTACK12	39[2]	254[2]	**R 336.1225, 40 CFR 52.21(c) & (d)**
7. SVSTACK13	39[2]	254[2]	**R 336.1225, 40 CFR 52.21(c) & (d)**
8. SVSTACK14	39[2]	254[2]	**R 336.1225, 40 CFR 52.21(c) & (d)**

IX. OTHER REQUIREMENT(S)

1. Both of the following apply to each incinerator in FGAQCI, and to its scrubber train, when the incinerator commences trial operation after the air quality control improvements authorized by this Permit to Install have been completed for that incinerator[2]:
   a. The Special Conditions in FGAQCI become applicable requirements for that incinerator and its scrubber train.
   b. The Special Conditions in FGCOMPLEX2 cease to be applicable requirements for that incinerator and its scrubber train.

   (R 336.1201(3))

2. Except during periods when an incinerator is out of service (cold standby mode), the permittee shall implement a MAP and record incidents of high opacity and inappropriate hearth temperatures as well as corrective actions and updates to the MAP. The MAP dated March 22, 2007, or its most recent revision, shall be implemented. All maintenance activities regarding the MAP shall be recorded and made available to AQD upon request.[2] **(R 336.1911, Consent Order No. 17-2006)**

Footnotes:

[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FG4M-INCIN
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This flexible group covers all sewage sludge incinerators subject to 40 CFR Part 60, Subpart MMMM. The conditions for this flexible group take effect on and after the effective date of Subpart MMMM: March 21, 2016.

Emission Unit: EUINC07, EUINC08, EUINC09, EUINC10, EUINC11, EUINC12, EUINC13, EUINC14

POLLUTION CONTROL EQUIPMENT

For each incinerator: a venturi scrubber followed by an impingement tray wet scrubber and a mist eliminator.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Particulate Matter	80 milligrams per dry standard cubic meter [a 2]	Test protocol*	Each incinerator in FG4M-INCIN	SC V.1-5, VI.5, VI.6, VI.9	**40 CFR 60.5165**
2. Hydrogen chloride	1.2 ppmv dry [a 2]	Test protocol*	Each incinerator in FG4M-INCIN	SC V.1-5, VI.5-7, VI.9	**40 CFR 60.5165**
3. Carbon monoxide	3,800 ppmv dry [a 2]	Test protocol*	Each incinerator in FG4M-INCIN	SC V.1-5, VI.3, VI.9	**40 CFR 60.5165**
4. Dioxins/furans (total mass basis) [b, c]	5.0 nanograms per dry standard cubic meter [a 2]	Test protocol*	Each incinerator in FG4M-INCIN	SC V.1-5, VI.3, VI.9	**40 CFR 60.5165**
5. Dioxins/furans (toxic equivalency basis) [b, c]	0.32 nanograms per dry standard cubic meter [a 2]	Test protocol*	Each incinerator in FG4M-INCIN	SC V.1-5, VI.3, VI.9	**40 CFR 60.5165 40 CFR 60.5185(c)**
6. Mercury	0.28 milligrams per dry standard cubic meter [a 2]	Test protocol*	Each incinerator in FG4M-INCIN	SC V.1-5, VI.9	**40 CFR 60.5165**
7. Oxides of nitrogen	220 ppmv dry [a 2]	Test protocol*	Each incinerator in FG4M-INCIN	SC V.1-5, VI.3, VI.9	**40 CFR 60.5165**
8. Sulfur Dioxide	26 ppmv dry [a 2]	Test protocol*	Each incinerator in FG4M-INCIN	SC V.1-5, VI.5-7, VI.9	**40 CFR 60.5165**
9. Cadmium	0.095 milligrams per dry standard cubic meter [a 2]	Test protocol*	Each incinerator in FG4M-INCIN	SC V.1-5, VI.5, VI.6, VI.9	**40 CFR 60.5165**
10. Lead	0.30 milligrams per dry standard cubic meter [a 2]	Test protocol*	Each incinerator in FG4M-INCIN	SC V.1-5, VI.5, VI.6, VI.9	**40 CFR 60.5165**

[a] All emission limits are measured at 7 percent oxygen, dry basis, at standard conditions. For the emission limits in this table, standard conditions are defined in 40 CFR 60.5250.
[b] Dioxins/furans are defined in 40 CFR 60.5250.
[c] The permittee has the option to comply with either the dioxin/furan limit on a total mass basis or the dioxin//furan emission limit on a toxic equivalency basis.
* Test protocol shall specify averaging time.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Use of the bypass stack associated with an incinerator in FG4M-INCIN at any time that sewage sludge is being charged to that incinerator is an emissions standards deviation for all of the pollutants listed in Special Conditions I.1 through I.10.[2] **(40 CFR 60.5220(d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. For each pollutant and incinerator for which the permittee has chosen the compliance demonstration option specified in SC V.2 or V.4, the permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the pollutant emissions from the incinerator on a continuous basis.[2] **(40 CFR 60.13, 40 CFR 60.5220(b)(3)))**

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the sewage sludge feed rate for each incinerator in FG4M-INCIN on a continuous basis.[2] **(40 CFR 60.5170(f)(1))**

3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the combustion chamber temperature for each incinerator in FG4M-INCIN on a continuous basis.[2] **(R 336.1910, 40 CFR 60.5200, 40 CFR 60.5170(a))**

4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the pressure drop across the inlet and outlet of each scrubber in each scrubber train for FG4M-INCIN on a continuous basis.[2] **(R 336.1910, 40 CFR 60.5200, 40 CFR 60.5170(b))**

5. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the liquid flow rate through each scrubber in each scrubber train for FG4M-INCIN on a continuous basis.[2] **(R 336.1910, 40 CFR 60.5200, 40 CFR 60.5170(b))**

6. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the liquid pH for each scrubber in each scrubber train for FG4M-INCIN on a continuous basis.[2] **(R 336.1910, 40 CFR 60.5200, 40 CFR 60.5170(b))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall have the option of conducting emission tests to demonstrate initial compliance with the emission limits and standards for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans (total mass or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, and lead. If the permittee chooses the option of performing emission tests, then the emission tests shall be conducted using the test methods, averaging methods and minimum sampling volumes or durations specified in Table 3 of 40 CFR Part 60, Subpart MMMM, and according to the testing, monitoring and calibration requirements specified in 40 CFR 60.5220(a). Stack testing procedures and the location of stack testing ports shall be in accordance with the applicable federal Reference Methods, 40 CFR Part 60 Appendix A. The permittee may use results from a performance test conducted within the two previous years that was conducted under the same conditions and demonstrated compliance with the emission limits and standards specified in the Emission Limits section of this Flexible Group, provided that no process changes have been made since the performance test was conducted. If the results of a past performance test are used, the permittee shall continue to meet the operating limits established during that performance test that demonstrated compliance with the applicable emission limits. The past performance test must have used the same test methods specified in Table 3 of 40 CFR Part 60 Subpart MMMM. Not less than 30 days prior to the anticipated test date, a complete stack testing plan shall be submitted to the AQD Technical Programs Unit and District Office for approval. The AQD must approve the final plan prior to testing.[2] **(40 CFR 60.5185(a))**

2. In lieu of conducting the emissions test specified in Special Condition V.1, the permittee may demonstrate initial compliance with the emission limits for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans, mercury, nitrogen oxides, sulfur dioxide, cadmium and lead by substituting the use of a continuous emission monitoring system for any or all of these pollutants in accordance with the requirements of 40 CFR 60.5185(b).[2] **(40 CFR 60.5185(b))**

3. The permittee shall have the option of demonstrating continuous compliance with the emission limits and standards for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans (total mass or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium and lead using a performance test. If the permittee elects to choose the option of performance testing to demonstrate continuous compliance with the emission limits for the pollutants previously listed, performance tests shall be conducted on an annual basis for each pollutant (between 11 and 13 calendar months following the previous performance test), except as provide in 40 CFR 60.5205(a)(3) and (e). The performance tests shall be conducted using the test methods, averaging methods and minimum sampling volumes or durations specified in Table 3 of 40 CFR Part 60, Subpart MMMM, and according to the testing, monitoring and calibration requirements specified in 40 CFR 60.5220(a). Stack testing procedures and the location of stack testing ports shall be in accordance with the applicable federal Reference Methods, 40 CFR Part 60 Appendix A. Not less than 30 days prior to the anticipated test date, a complete stack testing plan shall be submitted to the AQD Technical Programs Unit and District Office for approval. The AQD must approve the final plan prior to testing.[2] **(40 CFR 60.5205(a))**

4. In lieu of conducting the performance tests specified in Special Condition V.3, the permittee may elect to demonstrate continuous compliance with the emission limits for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans, mercury, nitrogen oxides, sulfur dioxide, cadmium and lead by substituting the use of a continuous emissions monitoring system (CEMS) for any or all of these pollutants in accordance with the requirements of 40 CFR 60.5205(b). A continuous automated sampling system can be used in lieu of performance tests to demonstrate continuous compliance with the mercury or dioxin/furans emission limits. Should the permittee discontinue use of the CEMS to demonstrate continuous compliance with an emission limit for an incinerator, then a performance test, as specified in SC V.3, shall be performed before discontinuing use of the CEMS.[2] **(40 CFR 60.5205(b))**

5. As specified in 40 CFR 60.5190, the permittee shall establish the following parameters from the performance tests specified in SC V.1 and V.3:
   a. A minimum combustion chamber operating temperature (or minimum afterburner temperature) for each incinerator.
   b. A minimum pressure drop across each wet scrubber in each scrubber train.
   c. A minimum scrubber liquid flow rate (measured at the inlet to each wet scrubber in each scrubber train).
   d. A minimum scrubber liquid pH for each wet scrubber in each scrubber train

   Each established parameter shall be equal to the lowest 4-hour average of the parameter measured during the most recent performance test demonstrating compliance with all applicable emission limits. The permittee shall keep records on file at the facility for a period of five years.[2] **(40 CFR 60.5190)**

6. The use of a bypass stack during a performance test invalidates the results of the performance test.[2] **(40 CFR 60.5220(d))**

See Appendix 5

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall monitor and record the sewage sludge feed rate to the incinerators in FG4M-INCIN on a continuous basis, and calculate the daily average sewage sludge feed to each incinerator in FG4M-INCIN for all hours of operation during each 24-hour period. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(40 CFR 60.5170(f)(1))**

2. The permittee shall monitor and record the moisture content (as a weight percent) of the sewage sludge by taking a grab sample of the sewage sludge, on a daily basis, for the purpose of recording the range of moisture content. If the permittee takes more than one grab sample in a day, then the daily average moisture content for the number of grab samples taken shall be calculated. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(40 CFR 60.5170(f)(2))**

3. The permittee shall monitor and record the combustion chamber temperature for each incinerator in FG4M-INCIN on a continuous basis. Measurements of the combustion chamber temperature shall be recorded every 15 minutes. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(40 CFR 60.5170(a))**

4. The permittee shall develop and submit to the AQD District Supervisor a site-specific monitoring plan for each continuous monitoring system required by 40 CFR Part 60 Subpart MMMM.[2] **(40 CFR 60.5200)**

5. The permittee shall monitor and record, on a continuous basis, the pressure drop across the inlet and outlet of each scrubber in each scrubber train serving any incinerator in operation. Measurements of the pressure drop shall be recorded every 15 minutes. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(40 CFR 60.5170(b))**

6. The permittee shall monitor and record, on a continuous basis, the liquid flow rate through each scrubber in the scrubber train serving any incinerator in operation. Measurements of the scrubber liquid flow rate for each scrubber in the scrubber train shall be recorded every 15 minutes. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(40 CFR 60.5170(b), 40 CFR 60.5230)**

7. The permittee shall monitor and record, on a continuous basis, the scrubber liquid pH for each scrubber in the scrubber train serving any incinerator in operation. Measurements of the scrubber liquid pH for each scrubber in the scrubber train shall be recorded every 15 minutes. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(40 CFR 60.5170(b), 40 CFR 60.5230)**

8. The permittee shall keep records of any notifications to the AQD District Supervisor required by SC VII.1 and VII.2. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(40 CFR 60.5230(g)(1))**

9. For each pollutant and incinerator for which the permittee has chosen the compliance demonstration option specified in SC V.2 or V.4, the permittee shall continuously monitor and record, in a satisfactory manner, the pollutant emissions from the incinerator. The permittee shall operate each Continuous Emission Monitoring System (CEMS) to meet the timelines, requirements and reporting detailed in Appendix A and shall use the CEMS data to demonstrate compliance with the applicable emission limit in SC I.1-10.[2] **(40 CFR 60.13, 40 CFR 60.5165, 40 CFR 60.5185(c), 40 CFR 60.5220(b)(3))**

See Appendices 3 and 4

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee shall notify the AQD District Supervisor, in writing, one month before starting use of a continuous emissions monitoring system to demonstrate continuous compliance with an emission limit in SC I.1-10.[2] **(40 CFR 60.5220(b)(1))**

5. The permittee shall notify the AQD District Supervisor, in writing, one month before stopping use of a continuous emissions monitoring system to demonstrate compliance with an emission limit in SC I.1-10.[2] **(40 CFR 60.5220(b)(1))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The requirements of this flexible group become effective on March 21, 2016. Before that date, they are not applicable requirements.[2] **(40 CFR Part 60, Subparts A and MMMM)**

2. The permittee shall implement and comply with the Operator Training and Qualification provisions as specified in 40 CFR 60.5130 through 60.5160.[2] **(40 CFR 60.5130, 40 CFR 60.5135, 40 CFR 60.5140, 40 CFR 60.5145, 40 CFR 60.5150, 40 CFR 60.5155, 40 CFR 60.5160)**

3. For each air pollution control device in FG4M-INCIN, the permittee shall conduct an air pollution control device inspection according to 40 CFR 60.5220(c) by March 21, 2016. For air pollution devices installed after the final compliance date, the permittee must conduct the air pollution control device inspection within 60 days after installation of the control device. The inspection shall include, at a minimum, all of the following[2]:
   a. Inspect air pollution control device(s) for proper operation;
   b. Generally observe that the equipment is maintained in good operating condition;
   c. Develop a site-specific monitoring plan according to the requirements of 40 CFR 60.5200.
   (40 CFR 60.5195(a), 40 CFR 60.5220(c))

4. The permittee shall comply with all applicable provisions of the Standards of Performance for New Stationary Sources for Existing Sewage Sludge Incineration Units, as specified in 40 CFR Part 60, Subparts A and MMMM.[2] **(40 CFR Part 60, Subparts A and MMMM)**

5. The emission limits and standards of 40 CFR Part 60, Subparts A and MMMM, apply to each emission unit in FG4M-INCIN at all times the emission unit is operating and during periods of malfunction. The emission limits and standards apply to emissions from a bypass stack or vent while sewage sludge is in the combustion chamber (i.e. until the sewage sludge feed to the combustor has been cut off for a period of time not less than the sewage sludge incineration residence time).[2] **(40 CFR 60.5165)**

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGDryerTrains
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This flexible group covers all four dryer trains in the biosolids drying facility.

Emission Unit: EUDryerTrainA, EUDryerTrainB, EUDryerTrainC, EUDryerTrainD

POLLUTION CONTROL EQUIPMENT

Each dryer train has its own emission controls:
- Three-stage impingement scrubber
- Regenerative thermal oxidizer (RTO)

Each recycle bin has its own emission control device:
- Fabric filter collector

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.005 gr/dscf[2]	Test protocol*	Each recycle bin in FGDryerTrains	GC 13, VI.3-4	**R 336.1331**
2. PM10	0.005 gr/dscf[2]	Test protocol*	Each recycle bin in FGDryerTrains	GC 13, VI.3-4	**40 CFR 52.21(c) & (d)**
3. PM2.5	0.005 gr/dscf[2]	Test protocol*	Each recycle bin in FGDryerTrains	GC 13, VI.3-4	**40 CFR 52.21(c) & (d)**
4. NO_X	3.95 lb/hr[2]	Test protocol*	Each dryer train in FGDryerTrains	SC V.1-V.2	**40 CFR 52.21(c) & (d)**
5. CO	3.67 lb/hr[2]	Test protocol*	Each dryer train in FGDryerTrains	SC V.1-V.2, VI.2	**40 CFR 52.21(d)**
6. PM	1.22 lb/hr[2]	Test protocol*	Each dryer train in FGDryerTrains	SC V.1-V.2, VI.2	**R 336.1331(c)**
7. PM10	1.63 lb/hr[2]	Test protocol*	Each dryer train in FGDryerTrains	SC V.1-V.2, VI.2	**40 CFR 52.21(c) & (d)**
8. PM2.5	1.14 lb/hr[2]	Test protocol*	Each dryer train in FGDryerTrains	SC V.1-V.2, VI.2	**40 CFR 52.21(c) & (d)**
9. SO_2	0.82 lb/hr[2]	Test protocol*	Each dryer train in FGDryerTrains	SC V.1	**R 336.1407(a)**
10. VOC	1.68 lb/hr[2]	Test protocol*	Each dryer train in FGDryerTrains	SC V.1, VI.2	**R 336.1702(a)**
11. Lead	2.5×10^{-4} lb/hr[2]	Test protocol*	Each dryer train in FGDryerTrains	SC V.1	**40 CFR 52.21(d)**
12. H_2S	0.38 lb/hr[1]	Test protocol*	Each dryer train in FGDryerTrains	SC V.1, VI.2	**R 336.1224**

* Test protocol shall specify averaging time.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The total operating time for all dryer trains in FGDryerTrains shall not exceed 31,536 hours per 12-month rolling time period as determined at the end of each calendar month. For this condition, a dryer train shall be

considered to be operating whenever the dryer is processing sludge cake.[2] **(R 336.1205(1), R 336.1225(2), R 336.2801(ee), 40 CFR 52.21(b)(3)(i), 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any dryer train in FGDryerTrains unless the associated impingement tray scrubber and regenerative thermal oxidizer (RTO) are installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1224, R 336.1702(a), R 336.1910)**

2. The permittee shall not transfer material to any recycle bin in FGDryerTrains unless the associated fabric filter collector is installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1910)**

3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, devices for each drying train in FGDryerTrains to monitor and record the parameters listed below, on a continuous basis, during operation of the dryer train.[2]
   a. Temperature in the RTO combustion chamber
   b. Liquid flow rate to the impingement tray scrubber
   c. Pressure drop across the impingement tray scrubber
   d. Pressure drop across the recycle bin fabric filter collector

   (R 336.1224, R 336.1702(a), R 336.1910)

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. For each dryer train in FGDryerTrains, within 180 days after commencement of trial operation of the dryer train, the permittee shall verify NO_X, CO, PM, PM10, PM2.5, SO_2, VOC, lead, and H_2S emission rates from the dryer train by testing at owner's expense, in accordance with Department requirements. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.[2] **(R 336.1224, R 336.1331(c), R 336.1407(a), R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), 40 CFR 52.21(b)(3)(i), 40 CFR 52.21(c) & (d))**

2. The permittee shall periodically verify NO_X, CO, PM, PM10, and PM2.5, emission rates from all dryer trains in FGDryerTrains by testing at owner's expense, in accordance with Department requirements. No less than 30 days prior to each test, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve each final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. Periodic verification of emission rates shall comply with the following[2]:
   a. The permittee shall conduct the first tests required by this condition no later than 30 months after commencement of trial operation of the first dryer train in FGDryerTrains,
   b. Every two years, the permittee shall conduct testing for two dryer trains. The test plan submitted for approval for each test shall identify the dryer trains to be tested.
   c. The permittee shall rotate the dryer trains tested so that each dryer train is tested at least once every six years. If extenuating circumstances preclude meeting this requirement for a particular test, the submitted test plan shall describe the extenuating circumstances and request that this requirement be waived for that test.

   (R 336.1331(c), R 336.2001, R 336.2003, R 336.2004)

See Appendix 5

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep, in a satisfactory manner, a log of the monthly and 12-month rolling time period hours of operation for the dryer trains in FGDryerTrains. The permittee shall keep all records on file at the facility and

make them available to the Department upon request.[2] **(R 336.1205(1), R 336.2801(ee), 40 CFR 52.21(b)(3)(i), 40 CFR 52.21(c) & (d))**

2. The permittee shall monitor and record, in a satisfactory manner, the parameters listed below for each drying train in FGDryerTrains on the specified basis. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2]
   a. Temperature in the RTO combustion chamber, whenever a dryer train is exhausting to the RTO, on a continuous basis
   b. Liquid flow rate to the impingement tray scrubber, once each day that the dryer train operates
   c. Pressure drop across the impingement tray scrubber, once each day that the dryer train operates

   R 336.1224, R 336.1702(a), R 336.1910)

3. The permittee shall monitor and record, in a satisfactory manner, the pressure drop across each recycle bin fabric filter collector on a weekly basis, during operation of the associated dryer train. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1910)**

4. The permittee shall conduct a daily visible emissions check of each recycle bin's stack during routine operating conditions. For this condition, such checks do not have to be in accordance with Method 9. If a check reveals any visible emissions from a stack other than uncombined water vapor, the permittee shall inspect the fabric filter collector associated with the stack and perform any maintenance required to eliminate visible emissions. The permittee shall keep records of the results of the daily visible emissions check and of any maintenance performed after visible emissions are observed. The permittee shall keep these records on file and make them available to the AQD upon request.[2] **(R 336.1910)**

See Appendices 3 and 4

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of any dryer train in FGDryerTrains.[2] **(R 336.1201(7)(a))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVDryerTrainA	30[2]	130[2]	**R 336.1225, 40 CFR 52.21(c) & (d)**
2. SVDryerTrainB	30[2]	130[2]	**R 336.1225, 40 CFR 52.21(c) & (d)**
3. SVDryerTrainC	30[2]	130[2]	**R 336.1225, 40 CFR 52.21(c) & (d)**

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
4. SVDryerTrainD	30[2]	130[2]	**R 336.1225, 40 CFR 52.21(c) & (d)**
5. SVRecycleBinA	8[2]	130[2]	**40 CFR 52.21(c) & (d)**
6. SVRecycleBinB	8[2]	130[2]	**40 CFR 52.21(c) & (d)**
7. SVRecycleBinC	8[2]	130[2]	**40 CFR 52.21(c) & (d)**
8. SVRecycleBinD	8[2]	130[2]	**40 CFR 52.21(c) & (d)**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGDryerFacility
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This flexible group covers the entire biosolids drying facility. In addition to the dryer trains, the storage silos, and the biosolids drying facility roadways, it includes the following equipment inside the building to prepare feed to the dryer trains: eight sludge grinders (two for each dryer train), eight electrically-powered dewatering centrifuges (two for each dryer train), a cake bin and enclosed pug mill for each dryer train, and conveyors to transfer materials. The facility also has a hot water heater, an air handling unit, and make-up air units for the building, all natural gas-fired. All process area building ventilation exhaust is routed through four alkaline hypochlorite scrubbers.

Emission Unit: EUDryerTrainA, EUDryerTrainB, EUDryerTrainC, EUDryerTrainD, EUSolidsSilo1, EUSolidsSilo2, EUSolidsSilo3, EUSolidsSilo4, EUWaterHeater, EUAirHandling, EUMakeUpAir

POLLUTION CONTROL EQUIPMENT

All building ventilation exhaust is routed through four alkaline hypochlorite scrubbers.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NO_X	71.5 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGDryerFacility	SC VI.2	**R 336.1205(1), R 336.2801(ee)**
2. CO	65.7 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGDryerFacility	SC VI.2	**R 336.1205(1), R 336.2801(ee)**
3. PM	20.0 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGDryerFacility	SC VI.2	**R 336.1205(1), R 336.2801(ee)**
4. PM10	26.9 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGDryerFacility	SC VI.2	**R 336.1205(1), R 336.2801(ee)**
5. PM2.5	19.2 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGDryerFacility	SC VI.2	**R 336.1205(1), R 336.2801(ee), 40 CFR 52.21(b)(3)(i)**
6. CO_2e	90,361 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGDryerFacility	SC VI.2	**R 336.1205(1), 40 CFR 52.21(b)(3)(i)**

Visible emissions from all truck traffic at the biosolids drying facility shall not exceed five (5) percent opacity.Compliance shall be demonstrated using Test Method 9D as defined in Section 324.5525(j) of Part 55, Air

Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451).[2] **(R 336.1301)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall keep each pug mill's cover closed when the pug mill is in operation, except as necessary for operation, inspection, and maintenance.[2] **(R 336.1910)**

2. The permittee shall not feed biosolids to any dryer train in FGDryerFacility unless a malfunction abatement plan (MAP) as described in Rule 911(2), for all FGDryerFacility operations has been submitted, and is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.[2] **(R 336.1911)**

3. Whenever trucks are loaded with material from the silos in FGDryerFacility, the permittee shall apply non-volatile oil to the material being transferred, to minimize the generation of fugitive dust.[2] **(R 336.1371, R 336.1372, Act 451 324.5524)**

4. The permittee shall only transfer material to silos in FGDryerFacility through enclosed conveyors.[2] **(R 336.1910)**

5. The total natural gas-burning time for all equipment in EUMakeUpAir shall not exceed 16,000 hours per 12-month rolling time period as determined at the end of each calendar month. For this condition, "natural gas burning time" means time when natural gas burners are consuming fuel.[2] **(R 336.1205(1), 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall pave all roadways at FGDryerFacility and maintain them in good condition, to minimize the generation of fugitive dust.[2] **(R 336.1205(1), R 336.1371, R 336.1372, R 336.2801(ee))**

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, devices to monitor and record the parameters specified below for equipment in FGDryerFacility[2]:
   a. The pH of the scrubber liquid in each alkaline hypochlorite scrubber.
   b. The oxidation-reduction potential (ORP) of the scrubber liquid in each alkaline hypochlorite scrubber.
   c. All other parameters identified in the approved malfunction abatement plan for FGDryerFacility, at the frequency identified in the plan

   (R 336.1910, R 336.1911)

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.[2] **(R 336.1205(1))**

2. The permittee shall calculate the emission rates of the pollutants listed below from FGDryerFacility monthly, both for the calendar month and for the 12-month rolling time period ending that month, using a method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2]
   a. NO_x
   b. CO
   c. PM
   d. PM10
   e. PM2.5
   f. CO_2e

   (R 336.1205(1), R 336.2801(ee), 40 CFR 52.21(b)(3)(i))

3. The permittee shall monitor and record, in a satisfactory manner, the parameters listed below for FGDryerFacility, on the specified basis. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2]
   a. The pH of the scrubber liquid in each alkaline hypochlorite scrubber, once each shift that the scrubber operates.
   b. The oxidation-reduction potential (ORP) of the scrubber liquid in each alkaline hypochlorite scrubber, once each shift that the scrubber operates.
   c. All other parameters identified in the approved malfunction abatement plan for FGDryerFacility, on the basis identified in the plan.

   (R 336.1910, R 336.1911)

4. The permittee shall keep, in a satisfactory manner, a log of all actions taken to comply with SC IV.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1205(1), R 336.1371, R 336.1372, R 336.2801(ee))**

5. The permittee shall keep, in a satisfactory manner, a log of the monthly and 12-month rolling time period hours of operation of EUMakeUpAir. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1205(1), 40 CFR 52.21(c) & (d))**

See Appendices 3 and 4

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install for FGDryerFacility, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of any dryer in FGDryerFacility, which is considered to occur when the permittee first feeds sludge cake to any dryer.[2] **(R 336.1201(7)(a))**

5. For each incinerator listed below, no later than the date that the permittee permanently ceases operating the incinerator, the permittee or the authorized agent pursuant to Rule 204 shall submit a closure notification,

including the date of closure, to the AQD District Supervisor. For this condition, "permanently ceases operating" means that the unit has ceased operating and that the permittee has decided to not restart it.[2]

a. EUINCIN01
b. EUINCIN03
c. EUINCIN04
d. EUINCIN05
e. EUINCIN06

(40 CFR 60.5125)

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVScrubber1	60[2]	80[2]	**40 CFR 52.21(c) & (d)**
2. SVScrubber2	60[2]	80[2]	**40 CFR 52.21(c) & (d)**
3. SVScrubber3	60[2]	80[2]	**40 CFR 52.21(c) & (d)**
4. SVScrubber4	60[2]	80[2]	**40 CFR 52.21(c) & (d)**
5. SVWaterHeater	12[2]	60[2]	**R 336.1225, 40 CFR 52.21(c) & (d)**
6. SVAirHandling	8[2]	60[2]	**R 336.1225, 40 CFR 52.21(c) & (d)**

IX. OTHER REQUIREMENT(S)

1. The start-up of each dryer in FGDryerFacility requires the permanent shutdown of one or more of EUINCIN01 (incinerator No. 1), EUINCIN03 (incinerator No. 3), EUINCIN04 (incinerator No. 4), EUINCIN05 (incinerator No. 5), and EUINCIN06 (incinerator No. 6), as listed below. For this condition, "start-up" of a dryer means the introduction of biosolids into the dryer.[2] **(R 336.1205(1), R 336.2801(ee), 40 CFR 52.21(b)(3)(i))**
   a. No later than start-up of the first dryer in FGDryerFacility, the permittee shall permanently cease operating incinerators according to the requirements listed in row (i) of the table below.
   b. No later than start-up of the second dryer in FGDryerFacility, the permittee shall permanently cease operating incinerators according to the requirements listed in row (ii) of the table below.
   c. No later than start-up of the third dryer in FGDryerFacility, the permittee shall permanently cease operating incinerators according to the requirements listed in row (iii) of the table below.
   d. No later than start-up of the fourth dryer in FGDryerFacility, the permittee shall permanently cease operating incinerators according to the requirements listed in row (iv) of the table below.

	Number of Dryers that have Started Operation	Incinerators that Must Permanently Cease Operating (Permanently Shut Down)
(i)	Only one dryer [A]	Any single incinerator of Nos. 1, 3, 5, and 6
(ii)	Any two dryers	Any two incinerators of Nos. 1, 3, 4, 5, and 6
(iii)	Any three dryers [B]	Any three incinerators of Nos. 1, 3, 5, and 6
(iv)	All four dryers	All five of incinerator Nos. 1, 3, 4, 5, and 6
[A,B] If incinerator No. 4 has permanently ceased operating when this occurs, it does not affect the number of other incinerators that must permanently cease operation.		

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FG2013Project
FLEXIBLE GROUP CONDITIONS

DESCRIPTION
This flexible group covers all the upgraded incinerators and the biosolids drying facility.

Emission Unit: EUINC07, EUINC08, EUINC09, EUINC10, EUINC11, EUINC12, EUINC13, EUINC14, EUDryerTrainA, EUDryerTrainB, EUDryerTrainC, EUDryerTrainD, EUSolidsSilo1, EUSolidsSilo2, EUSolidsSilo3, EUSolidsSilo4, EUWaterHeater, EUAirHandling, EUMakeUpAir

POLLUTION CONTROL EQUIPMENT
NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NO_X	735.0 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FG2013Project	SC VI.1	**R 336.1205(1), R 336.2801(ee)**
2. CO	1,588.1 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FG2013Project	SC VI.1	**R 336.1205(1), R 336.2801(ee)**
3. PM	66.6 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FG2013Project	SC VI.1	**R 336.1205(1), R 336.2801(ee)**
4. PM10	86.5 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FG2013Project	SC VI.1	**R 336.1205(1), R 336.2801(ee)**
5. PM2.5	77.5 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FG2013Project	SC VI.1	**R 336.1205(1), R 336.2801(ee), 40 CFR 52.21(b)(3)(i)**
6. CO_2e	327,636 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FG2013Project	SC VI.1	**R 336.1205(1), 40 CFR 52.21(b)(3)(i)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall calculate the emission rates of the pollutants listed below from FG2013Project monthly, both for the calendar month and for the 12-month rolling time period ending that month, using a method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1205(1), R 336.2801(ee), 40 CFR 52.21(b)(3)(i))**
   a. NO_X
   b. CO
   c. PM
   d. PM10
   e. PM2.5
   f. CO_2e

2. The permittee shall conduct an ambient air monitoring program for NO_2 in a manner and with instrumentation approved by the AQD Air Monitoring Unit. Monitoring shall consist of at least two air monitoring locations and shall begin no later than the earlier of the dates listed below. The permittee shall conduct monitoring in accordance with the plan for three years or until one year of acceptable data collection shows that the ambient air concentrations of NO_2 are no higher than 50% of the applicable 1-hour and annual NO_2 National Ambient Air Quality Standards, whichever comes first. "Acceptable data collection" means fully quality assured and no less than 75% complete.[2]
   a. By startup of the last dryer train in FG2013Project.
   b. March 21, 2016
   (40 CFR 52.21(d))

See Appendices 3 and 4

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. No later than 90 days after issuance of this permit, the permittee shall submit to the AQD Air Monitoring Unit an acceptable plan for the ambient air monitoring program for NO_2 required by SC VI.2.[2] **(40 CFR 52.21(d))**

5. The permittee shall submit all ambient air monitoring data records to the AQD Air Monitoring Unit in an acceptable format within 30 days following the end of the month in which the data were collected.[2] **(40 CFR 52.21(d))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

APPENDICES

Appendix 1: Abbreviations and Acronyms

The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.

AHSPO	Assistant Head Sewage Plant Operator	MW	Megawatts
AQD	Air Quality Division	NA	Not Applicable
Acfm	Actual cubic feet per minute	NAAQS	National Ambient Air Quality Standards
BACT	Best Available Control Technology	NESHAP	National Emission Standard for Hazardous Air Pollutants
BTU	British Thermal Unit	NHMC	Non-methane Hydrocarbons
°C	Degrees Celsius	NMOC	Non-methane Organic Compounds
CAA	Federal Clean Air Act	NOx	Oxides of Nitrogen
CAM	Compliance Assurance Monitoring	NSPS	New Source Performance Standards
CEM	Continuous Emission Monitoring	NSR	New Source Review
CFR	Code of Federal Regulations	PM	Particulate Matter
CO	Carbon Monoxide	PM-10	Particulate Matter less than 10 microns in diameter
COM	Continuous Opacity Monitoring	POTW	Publically Owned Treatment Works
department	Michigan Department of Environmental Quality	pph	Pound per hour
dscf	Dry standard cubic foot	ppm	Parts per million
dscm	Dry standard cubic meter	ppmv	Parts per million by volume
EPA	United States Environmental Protection Agency	ppmw	Parts per million by weight
EU	Emission Unit	PS	Performance Specification
°F	Degrees Fahrenheit	PSD	Prevention of Significant Deterioration
FG	Flexible Group	psia	Pounds per square inch absolute
GACS	Gallon of Applied Coating Solids	psig	Pounds per square inch gauge
gr	Grains	PeTE	Permanent Total Enclosure
HAP	Hazardous Air Pollutant	PTI	Permit to Install
HC	Hydrocarbon	RACT	Reasonable Available Control Technology
HCFC	Hydrochlorofluorocarbon	RMP	Risk Management Plan
Hg	Mercury	ROP	Renewable Operating Permit
hr	Hour	SC	Special Condition
HP	Horsepower	scf	Standard cubic feet
H_2S	Hydrogen Sulfide	sec	Seconds
HVLP	High Volume Low Pressure *	SCR	Selective Catalytic Reduction
ID	Identification (Number)	SO_2	Sulfur Dioxide
IRSL	Initial Risk Screening Level	SPA	Sewage Plant Attendant
ITSL	Initial Threshold Screening Level	SPO	Sewage Plant Operator
LAER	Lowest Achievable Emission Rate	SRN	State Registration Number
lb	Pound	Sr. SPO	Senior Sewage Plant Operator
m	Meter	TAC	Toxic Air Contaminant
MACT	Maximum Achievable Control Technology	Temp	Temperature
MAERS	Michigan Air Emissions Reporting System	THC	Total Hydrocarbons
MAP	Malfunction Abatement Plan	tpy	Tons per year
MDEQ	Michigan Department of Environmental Quality	µg	Microgram
mg	Milligram	VE	Visible Emissions
mm	Millimeter	VOC	Volatile Organic Compounds
MM	Million	wtph	Wet Tons per Hour
MSDS	Material Safety Data Sheet	WWTP	Waste Water Treatment Plant
MVAC	Motor vehicle air conditioner	yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (psig).

Appendix 2. Schedule of Compliance

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. **(R 336.1213(4)(a), R 336.1119(a)(ii))**

Appendix 3. Monitoring Requirements

The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in flexible groups FGCOMPLEX1, FGCOMPLEX2, and FGLIMESTORAGE.

3.1 BAGHOUSE INSPECTIONS

1. Inspections shall be conducted during scheduled outages or downtimes, and immediately after observing visible emissions or pressure drops outside the normal range, but not less frequently than every six months. **(R336.1213(3))**

2. The operational condition, and if necessary, reasons for failure or malfunction of the bags, metal housings, fans, blowers, hopper bottom discharge valve, reverse air dampers or pulse jets, access doors and gaskets (whichever is applicable) shall be determined during the inspection. **(R336.1213(3))**

3. Any repairs and corrective actions needed to address the causes of malfunction or failure shall be performed promptly to maintain compliance. **(R336.1213(3))**

4. Permittee shall perform weekly maintenance inspections of the baghouses which shall include visual inspection of the fabric filter bags for security of attachment, holes or tears in the fabric filter bags for security of attachment, holes or tears in the fabric and evidence of dust leakage. **R336.1213(3))**

3.2 SCRUBBER INSPECTIONS

The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in FGCOMPLEX2.

1. Inspections shall be conducted during scheduled outages or downtimes, and immediately after observing visible emissions or differential pressures outside the normal range, but not less frequently than every six months. **(R336.1910)**

2. The operational condition, and if necessary, reasons for failure or malfunction of the pumps, spray nozzles, venturi throats, plates, baffles, packing, orifices, tangential openings, mechanically driven rotors, entrainment separators (mist eliminators), fans, blowers, (whichever is applicable), shall be determined during the inspection. **(R336.1910)**

3. Any repairs and corrective actions needed to address the causes of malfunction or failure shall be performed promptly to maintain compliance. **(R336.1910)**

3.3.A. POLLUTANT MONITORING FOR 40 SUBPART 60 SUBPART MMMM, Continuous Emission Monitoring System (CEMS) Requirements

1. Within 30 calendar days of submitting the written notification required by FG4M-INCIN SC VII.1, the permittee shall submit two copies of a Monitoring Plan to the AQD, for review and approval. The Monitoring Plan shall include drawings or specifications showing proposed locations and descriptions of the required CEMS.

2. Within 150 calendar days of submitting the written notification required by FG4M-INCIN SC VII.1, the permittee shall submit two copies of a complete test plan for the CEMS to the AQD for approval.

3. Within 180 calendar days of submitting the written notification required by FG4M-INCIN SC VII.1, the permittee shall complete the installation and testing of the CEMS.

4. Within 60 days of completion of testing, the permittee shall submit to the AQD two copies of the final report demonstrating the CEMS complies with the requirements of the corresponding Performance Specifications (PS) in the following table.

Pollutants with a Promulgated PS	Applicable PS
PM	11
HCl	13
CO	4
Mercury	12A or 12B
Nitrogen oxides	2
SO_2	2
Oxygen	3

Pollutants without a promulgated PS	Applicable PS
Cadmium	NA*
Lead	NA*
Dioxins/furans	NA*

* Upon promulgation of a PS for this pollutant, the promulgated PS becomes an "applicable PS" for this appendix.

5. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.

6. Each CEMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and the above-listed PS of Appendix B to 40 CFR Part 60.

7. Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CEMS set forth in Appendix F of 40 CFR Part 60. Within 30 days following the end of each calendar quarter, the permittee shall submit the results to the AQD in the format of the data assessment report (Figure 1, Appendix F).

8. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to the AQD, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:
   a) A report of each exceedance above the limits specified in the conditions of this permit. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.
   b) A report of all periods of CEMS downtime and corrective action.
   c) A report of the total operating time of the incinerator served by the CEMS during the reporting period.
   d) A report of any periods that the CEMS exceeds the instrument range.
   e) If no exceedances or CEMS downtime occurred during the reporting period, the permittee shall report that fact.

The permittee shall keep all monitoring data on file for a period of at least five years and make them available to the AQD upon request.

3.3.B. OXYGEN MONITORING FOR FGAQCI, Continuous Emission Monitoring System (CEMS) Requirements

1. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.

2. The CEMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and PS 3 of Appendix B to 40 CFR Part 60.

3. Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CEMS set forth in Appendix F of 40 CFR Part 60. Within 30 days following the end of each calendar quarter, the permittee shall submit the results to the AQD in the format of the data assessment report (Figure 1, Appendix F).

4. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to the AQD, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:
   a) A report of all periods of CEMS downtime and corrective action.
   b) A report of the total operating time of the incinerator during the reporting period.
   c) A report of any periods that the CEMS exceeds the instrument range.
   d) If no exceedances or CEMS downtime occurred during the reporting period, the permittee shall report that fact.

The permittee shall keep all monitoring data on file for a period of at least five years and make them available to the AQD upon request.

3.3.C. VISIBLE EMISSIONS MONOTIRING FOR FGAQCI, Continuous Opacity Monitoring System (COMS) Requirements

1. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.

2. The COMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and PS 1 of Appendix B, 40 CFR Part 60.

3. The permittee shall perform an annual audit of the COMS using the procedures set forth in USEPA Publication 450/4-92-010, "Performance Audits Procedures for Opacity Monitors", or a procedure acceptable to AQD. Within 30 days after the completion of the audit, the results of the annual audit shall be submitted to the AQD.

4. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to Air Quality Division, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:
   a) A report of all periods of COMS downtime and corrective action.
   b) A report of the total operating time of the incinerator during the reporting period.
   c) If no exceedances or COMS downtime occurred during the reporting period, the permittee shall report that fact.

The permittee shall keep all monitoring data on file for a period of at least five years and make them available to the AQD upon request.

Appendix 4. Recordkeeping

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in the Source Wide Requirements and flexible groups FGCOMPLEX1, FGCOMPLEX2, and FGLIMESTORAGE. Alternative formats must be approved by the AQD District Supervisor.

For Requirements in FGLIMESTORAGE

BAGHOUSE INSPECTIONS

A. A log of the inspections, cause(s) of malfunctions or failures, repairs made and corrective actions taken shall be maintained on file for a period of at least five years. **(R336.1213(3))**

B. The permittee shall keep records of the preventive maintenance inspections. These records shall include the date and time of inspection, name of person making the inspection, identification of the unit inspected, conditions of the unit and descriptions of any corrective action taken. These records shall be maintained for a minimum of five years and made available to the Division upon request. **(R336.1213(3))**

For Requirements in FGCOMPLEX1, FGCOMPLEX2

SCRUBBER INSPECTIONS

A log of the inspections, cause(s) of malfunctions or failures, repairs made and corrective actions taken shall be maintained on file (hardcopy or electronic) for a period of at least five years. **(R336.1910)**

For Requirements under Source Wide Requirements

Mercury and Beryllium

1. The permittee shall retain records of emission test results and other data needed to determine total emissions of beryllium at the facility for a minimum of five years and made available, upon request, for inspection, by the Division. **(40CFR 61.33(e))**

2. The permittee shall retain records of emission test results and other data needed to determine total emissions of mercury at the facility for a minimum of five years and made available, upon request, for inspection, by the Division. **(40CFR 61.53(d)(6))**

Appendix 4.1: Recordkeeping (continued)

The permittee shall use the following approved formats and the procedures for the recordkeeping requirements referenced in Source Wide Requirements.

1. The permittee shall keep records of implementation of requirements specified in the fugitive dust control program described below and for all requirements of the Consent Orders, Civil Actions and Consent Judgments described in Table B. These records shall be kept on file at the facility for the most recent five-year period and shall be made available to the Division upon request.
(R336.1213(3)), (Consent Order MDEQ SIP No. 11-1993)

ADDENDUM

(Act 451, Part 55 324.5524), (Consent Order MDEQ SIP No. 11-1993, Fugitive Control Plan, May, 1993)

RECORDKEEPING FOR FUGITIVE DUST SOURCES

REQUIRED RECORDS

UNPAVED ROADS/LOTS

1. DATE OF TREATMENT
2. CONTROL MEASURE USED
3. RESPONSIBLE PERSON'S INITIALS
4. NAME OF PRODUCT APPLIED
5. AMOUNT OF SOLUTION/WATER APPLIED
6. DILUTION RATIO
7. ROAD SEGMENT/LOT IDENTIFICATION

PAVED ROADS/LOTS

1. DATE OF TREATMENT

2. CONTROL MEASURE USED
3. RESPONSIBLE PERSON'S INITIALS
4. ROAD SEGMENT/LOT IDENTIFICATION

STORAGE PILES/MATERIAL HANDLING
1. DATE OF TREATMENT
2. CONTROL MEASURE USED
3. RESPONSIBLE PERSON'S INITIALS
4. DILUTION RATIO (IF APPLICABLE)
5. AMOUNT DUST SUPPRESSANT/WATER APPLIED
6. IDENTIFICATION OF PILE/MATERIAL HANDLING OPERATION TREATED
7. EQUIPMENT USED

OPTIONAL RECORDS

WEATHER CONDITIONS
1. PRECIPITATION
2. TEMPERATURE
3. WIND DIRECTION AND VELOCITY

Appendix 5. Testing Procedures

The following table lists the test methods that are to be used, in accordance with 40 CFR Part 60, Subpart MMMM, to satisfy the testing requirements for FGC1ASH, FGC2ASH, FGCOMPLEX1 and FGCOMPLEX2.

Pollutant	Test Method	Minimum sampling volumes or durations
Particulate matter	EPA Reference Test Method 5 at 40 CFR part 60, appendix A-3; Method 26A or Method 29 at 40 CFR part 60, appendix A-8.	3-run average (collect a minimum volume of 0.75 dry standard cubic meters per run)
Hydrogen chloride	EPA Reference Test Method 26 or 26A at 40 CFR part 60, appendix A-8.	3-run average (For Method 26, collect a minimum volume of 200 liters per run. For Method 26A, collect a minimum volume of 1 dry standard cubic meters per run)
Carbon Monoxide	EPA Reference Test Method 10, 10A, or 10B at 40 CFR part 60, appendix A-4.	3-run average (collect sample for a minimum duration of one hour per run)
Dioxins/furans (total mass basis)	EPA Reference Test Method 23 at 40 CFR part 60, appendix A-7.	3-run average (collect a minimum volume of 1 dry standard cubic meters per run)
Mercury	EPA Reference Test Method 29 at 40 CFR part 60, appendix A-8; Method 30B at 40 CFR part 60, appendix A-8; or ASTM D6784-02 (Reapproved 2008)	3-run average (For Method 29 and ASTM D6784-02 (Reapproved 2008), collect a minimum volume of 1 dry standard cubic meters per run. For Method 30B, collect a minimum sample as specified in Method 30B at 40 CFR part 60, appendix A-8)
Oxides of nitrogen	EPA Reference Test Method 7 or 7E at 40 CFR part 60, appendix A-4	3-run average (Collect sample for a minimum duration of one hour per run)

Pollutant	Test Method	Minimum sampling volumes or durations
Sulfur dioxide	EPA Reference Test Method 6 or 6C at 40 CFR part 40, appendix A-4; or ANSI/ASME PTC 19.10-1981.	3-run average (For Method 6, collect a minimum volume of 200 liters per run. For Method 6C, collect sample for a minimum duration of one hour per run)
Cadmium	EPA Reference Test Method 29 at 40 CFR part 60, appendix A-8.	3-run average (collect a minimum volume of 1 dry standard cubic meters per run)
Lead	EPA Reference Test Method 29 at 40 CFR part 60, appendix A-8.	3-run average (collect a minimum volume of 1 dry standard cubic meters per run)
Fugitive emissions from ash handling	Visible emission test (Method 22 of appendix A-7 of this part).	Three 1-hour observation periods.

Appendix 6. Permits to Install

The following table lists any PTIs issued since the effective date of previously issued ROP No. 199600412. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
252-06	NA	Seventeen (17) emergency generators	FGENGINES, FGCIENGINES
NA	200400018*	Special conditions were added to sections VI. And X. of the Flexible Group tables to address required inspections and maintenance activities for incinerators that have been placed in shutdown or cold standby mode.	FGCOMPLEX1, FGCOMPLEX2
NA	200900029*	A component of the fugitive dust plan was changed to reflect operations at the facility; a visible emission monitoring requirement was updated to clarify that visible emissions observation are not expected to occur at night; special conditions addressing an incinerator operating temperature requirement and the scrubber pressure drop were updated.	Source-Wide Conditions, FGCOMPLEX1, FGCOMPLEX2, FGLIMESTORAGE

The following ROP amendments or modifications were issued after the effective date of ROP No. MI-ROP-B2103-2014.

Permit to Install Number	ROP Revision Application Number/Issuance Date	Description of Change	Corresponding Emission Unit(s) or Flexible Group(s)
61-13	201400048/ June 13, 2014	Incorporate Permit to Install (PTI) No. 61-13.	FGCOMPLEX2 FGAQCI FG4M-INCIN FGDryerTrains FGDryerFacility

Permit to Install Number	ROP Revision Application Number/Issuance Date	Description of Change	Corresponding Emission Unit(s) or Flexible Group(s)
			FG2013Project

Appendix 7. Emission Calculations

The permittee shall use the following emission factors in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in FGENGINES.

Engine-Specific Emission Factors

Emission Unit ID	Emission Unit Description	NOx emissions @ 100% load (lb/hr)
EU-D1A	Caterpillar 3512 diesel fired 1500 kW generator	28.98
EU-D1B	Caterpillar 3512 diesel fired 1500 kW generator	28.98
EU-D2	Caterpillar 3508 diesel fired 1000 kW generator	29.67
EU-D4	Caterpillar C32 diesel fired 1000 kW generator	18.83
EU-D5	Caterpillar C15 diesel fired 400 kW generator	5.93
EU-D6	Caterpillar 1103C-33G1 diesel fired 20 kW generator	0.28
EU-P1	Portable diesel fired 70 kW generator	0.98
EU-P2	Portable diesel fired 70 kW generator	0.98
EU-G1	Caterpillar G3406 NA natural gas fired 150 kW generator	5.75
EU-G2	Caterpillar G3406 NA natural gas fired 150 kW generator	5.75
EU-G3	Ford G30F3 natural gas fired 30 kW generator	0.78
EU-G4	Ford G20F3 natural gas fired 20 kW generator	0.49
EU-G5	Ford G30F3S natural gas fired 30 kW generator	0.78
EU-G6	Ford G20F3 natural gas fired 20 kW generator	0.49
EU-G8	Ford G40F3 natural gas fired 30 kW generator	0.78
EU-G9	Ford G20F3 natural gas fired 20 kW generator	0.49
EU-G10	Caterpillar G3516 LE natural gas fired 1040 kW generator	6.45
The permittee shall calculate NOx emissions for each engine by multiplying the hours of operation for each engine by its respective engine-specific emission factor listed above, or as determined from testing, whichever is greater.		

Appendix 8. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the MDEQ Report Certification form (EQP 5736) and MDEQ Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

B. Other Reporting

The permittee shall use the following approved formats and procedures for the reporting requirements referenced in Source Wide Requirements, FGCOMPLEX1, FGCOMPLEX2. Alternative formats must be approved by the AQD District Supervisor.

For Source Wide Requirements

1. Beginning with the calendar quarter starting on October 1, 1993, and quarterly thereafter, the Permittee shall submit to the Division a report identifying each day in which any emission limit, operational requirement, or recordkeeping requirement, was not met.
   (R336.1213(3)), (Consent Order MDEQ SIP No. 11-1993)
2. The report specified in Condition 1 (above) shall, for each instance, explain the reason that the emission limit, operational requirement, or recordkeeping requirement was not met, the duration of the event, the remedial action taken, and a description of the steps which were taken to prevent recurrence.
   (R336.1213(3)), (Consent Order MDEQ SIP No. 11-1993)
3. The report specified in Condition 1 (above) shall be submitted within 30 days following the end of the calendar quarter in which data were collected.
   (R336.1213(3)), (Consent Order MDEQ SIP No. 11-1993)

Appendix 9. Preventative Maintenance Summary

For details about the Preventative Maintenance Summary, please refer to the updated Malfunction Abatement Plan, which was last revised in March 2007, and which is attached in the pages that follow.

Malfunction Abatement Plan

The City of Detroit
Wastewater Treatment Plant
9300 West Jefferson Avenue
Detroit, MI 48209

Revision C

March 2007

Table of Contents

Incineration Process Malfunction Abatement Plan

The City of Detroit Wastewater Treatment Plant

This document contains the Incineration Process Malfunction Abatement Plan to be used at the City of Detroit's Wastewater Treatment Plant, 9300 West Jefferson Avenue, Detroit, Michigan 48209. The plan's purpose is to assure compliance with the emission limit on opacity in the event of a malfunction or failure of any part of the process that affects opacity.

Rule 911 of the State of Michigan Air Pollution Control Rules requires the DWWTP to have a Malfunction Abatement Plan in place, "to prevent, detect, and correct malfunctions or equipment failures resulting in emissions exceeding any applicable emission limitation." The emission limitation this plan is concerned with is the opacity limitation of 20 percent. The rule requires that the plan specify, at a minimum:

a) A complete preventative maintenance program, including identification of the supervisory personnel responsible for overseeing the inspection, maintenance and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of these inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

The plan is divided into four sections in tabular format:

1. Represented by **Table 1**, *Key Monitored Process Parameters*, this section relates to R 336.1911 (2)(b) and delineates, "the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures."

   The first column of Table 1 shows the reference number which is used to link the malfunction range (condition) of Table 2 items and maintenance activities in Table 3 with one or more process parameters given in Table 1. The Operations personnel at the DWWTP have determined, through experience, the incineration process parameters whose variance has a direct effect on the opacity of incineration emissions. These parameters are shown in column 2 of Table 1.

   Columns 3 to 7 contain information regarding the device or method used to monitor a given process parameter in column 2, the location of such device, the frequency of monitoring, the normal range of the process parameter and the malfunction range for a given parameter.

   The value of a given parameter is indicative of either normal operation or

malfunction or failure of the process. Table 1 contains fields for both the normal operating range and the malfunction range for each monitored process parameter. If any of these parameter's values fall within the particular parameter's malfunction range, remedial action must be taken to prevent a deviation from the emission limitation

2. Represented by **Table 2,** *Malfunction Abatement Summary,* this section relates to R 336.1911 (2)(c) and is an, "identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures." This table details the action(s) to be taken in the event that one or more of the monitored Process Parameters value(s) in Table #1 enters its malfunction range.

   As an example, assume the oxygen level has fallen below 4 percent. Using Table 1, it is determined that <4% oxygen is indicative of a malfunction. *Oxygen Level %,* in the first row of Table 1, has a *Process Parameter Reference Number* of "1." Using this reference number and Table 2, it is determined that there are three possible causes for this condition (low oxygen). The operator need only determine which of the three is the actual cause and take the action recommended in the *Remedial Action* column corresponding to the cause.

   All opacity exceedances and the corrective action(s) taken will be recorded. Records of each operator adjustment to prevent an opacity exceedance need not be recorded.

3. **Table 3,** *Preventative Maintenance Summary,* is a summary of the preventative maintenance to be performed on devices whose failure may contribute to opacity deviations. The maintenance program relates to requirement (2)(a) of R 336.1911.

   As an example, refer to the first row of Table 3. The induced draft fan affects process parameters associated with Process Parameter Reference Numbers 1-6, 9 and 11. These reference numbers are used to reference Table 1's first column which indicates that Oxygen Level (%), Temperature, Draft Pressure, Feed Rate, Hopper Depth, Auxiliary Combustion Air Damper, Manual Opacity Monitor Calibrations and Slag Buildup are all affected if the induced draft fan malfunctions. The frequency of PM activity applies to units that are operating. Records of PM activity will be maintained.

4. **Table 4,** *Spare Parts List,* lists parts that are in inventory for use in the maintenance of devices listed in Table 3. This table, along with Table 3, relates to requirement (2)(a) of R 336.1911. For convenience, the attached

spare parts list may detail supplier name and supplier part number. However, the Detroit Wastewater Treatment Plant reserves the right to purchase spare parts from any company offering an acceptable substitute. The quantity of parts included in this section is a suggested number of spares. The Detroit Wastewater Treatment Plant reserves the right to have suppliers expedite delivery of parts from their factory or warehouse in lieu of storing onsite.

The intended function of the malfunction abatement plan (MAP) is, "to prevent, detect, and correct malfunctions or equipment failures resulting in emissions exceeding any applicable emission limitation." The emission limitation is 20% opacity.

Definition of Acronyms

PLC – Programmable Logic Controller
OCS – Ovation Control System
SFE – Screened Final Effluent (process water used where water is needed)
DWWTP – Detroit Wastewater Treatment Plant
I.D. Fan – Induced Draft Fan
MAP – Malfunction Abatement Plan
COMS – Continuous Opacity Monitoring System
P.M. – Preventative Maintenance
ID – Inside diameter
OD – Outside diameter
CI – Incineration Complex One
CII – Incineration Complex Two
IS – In-Service
I/O – Input/Output

Incineration Process Malfunction Abatement Plan

The City of Detroit Wastewater Treatment Plant

Table 1 - Key Monitored Process Parameters

Process Parameter Reference Number	Process Parameter	Monitoring Device or Method	Location of Monitor	Frequency of Monitoring	Normal Operating Range	Malfunction Range
1	**Oxygen Level (%)**	Oxygen Analyzer	Breach/Hearth #3	Continuous	1 – 12%	<1%
2	**Hearth #1 Temperature**	Thermocouple	Hearth #1	Continuous	1100 – 1500 °F.	<900 °F.
3	**Combustion Zone Temperature**	Thermocouple	Combustion zone hearths	Continuous	1200 – 1950 °F.	<1200 °F. or >1950 °F.
4	**Draft Pressure**	Pressure gauge	Breech/Hearth #5	Continuous	0.0 to –1.5 in. of H_2O	> +0.0 inches of H_2O
5	**Feed Rate**	Weightometers	Conveyor belts	Continuous	Complex I: 0-16 wet tons/hr; Complex II: 0-20 wet tons/hr	Complex I >16 wet tons/hr; Complex II >20 wet tons/hr
6	**Total Scrubber System Inlet-Outlet Differential Pressure**	Pressure gauges	Venturi section inlet and tray section outlet	Continuous	>18 inches of H_2O column	<18 inches of H_2O column
7	**Scrubber Water Flow**	Flow meters	Control Room	Continuous	3 – 4 SFE pumps in-service	< 3 SFE pumps in-service
8	**Sludge Combustion Air Supply**	Shaft return air and auxiliary air dampers	Control Room	Continuous	0 to 100% open	Unresponsive
9	**Slag Buildup**	Visual	Combustion zone hearths and center shaft	As needed	All holes open and center shaft clearance okay	≥ 25% holes blocked. Center shaft clearance not okay.
10	**Ash Buildup on Bottom Hearth**	Visual	Complex I – basement Complex II – first floor	As needed	Empty (no buildup)	Plugged drop hole
11	**Opacity**	Opacity monitor	Roof	Continuous	Below 20%	No reading or constant low or high readings

Incineration Process Malfunction Abatement Plan

The City of Detroit Wastewater Treatment Plant

Table 2 – Malfunction Abatement Summary

Process Parameter Reference Number	Condition	Possible Cause(s)	Means of Detection	Corrective Procedures
1	Low oxygen	Too many burners I.S.	PLC/OCS	Reduce burner firing rates or number of burners in use
1	Low oxygen	Low draft pressure	PLC/OCS	Increase draft pressure setpoint
1	Low oxygen	Process control problems	PLC/OCS	Increase oxygen set point, or manually increase air damper openings
2	Low hearth #1 temperature	Feed rate increase or lower cake solids	PLC/OCS	Increase upper hearth burner firing rates and/or reduce feed rate if necessary
3	Low combustion temperatures	Low burner use profiles	PLC/OCS	Increase number of burners in use and/or firing rates as needed.
3	Low combustion temperatures	Feed rate increase or lower cake solids	PLC/OCS	Increase number of burners in use and/or firing rates as needed. Or, if necessary, reduce feed rate.
3	High combustion temperatures	Lost feed, burner use profile, or change in cake solids	PLC/OCS	Restore feed or reduce number of burners and/or firing rates
4	Low or high draft	Various process changes	PLC/OCS	Increase or decrease draft pressure set point as needed
5	No feed	Conveyor(s) stopped or hopper bridging	PLC/OCS & visual inspections	Restart conveyors and/or clear hopper bridging. Check screw speed settings
5	Too much feed	Not enough incinerators	Visual Inspection	Put more incinerators in-service / decrease feed
5	Hopper bridging	Cake containing an excessive amount of polymer	Visual Inspection	Run the hopper until it is empty (this eliminates the bridging)
6	Low scrubber system differential pressure	Various process changes	PLC/OCS	Increase draft and venturi differential pressure set points
7	Low scrubber water flow rate	Incorrect settings or loss in water supply pressure	PLC/OCS	Increase flow settings and/or restore water supply pressure
8	Low or no sludge combustion air supply	Oxygen control system or air damper problems	PLC/OCS	Open air dampers in manual mode and visually check damper action, open lower hearth peep holes if necessary

Incineration Process Malfunction Abatement Plan

The City of Detroit Wastewater Treatment Plant

Table 2 – Malfunction Abatement Summary

Process Parameter Reference Number	Condition	Possible Cause(s)	Means of Detection	Corrective Procedures
9	Slag buildup	High combustion zone temperatures	PLC/OCS/Visual	De-slag affected hearths and/or center shaft sections if needed
10	Ash buildup on bottom hearth	Ash system not removing ash	PLC/OCS/Visual	Check ash system. If not working, stop feed, stop shaft and control burnout, and place incinerator out-of-service before corrective maintenance begins
11	Opacity monitor malfunction	Electrical or dirty lenses	PLC/OCS	Place incinerator out-of-service for instrument corrective maintenance
Any	Preventative Maintenance	Other components shut off as a result of P.M.	PLC/OCS	Control burnout and place incinerator in standby mode prior to PM

Incineration Process Malfunction Abatement Plan

City of Detroit Wastewater Treatment Plant

Table 3 – Preventative Maintenance Summary – Tasks Common to both Complex I and Complex II

Process Parameter Reference Number	Maintained Equipment	Preventative Maintenance Task	Frequency	Responsible Supervisor (Title)
4, 5, 6	Induced draft fan	Electrical inspection	Annually	EWG Sub-Foreman
		Oil lubrication & sensory check	Annually	Plant Maintenance Sub-Foreman
		Oil change - bearings	Annually	Plant Maintenance Sub-Foreman
1, 2, 3	Incinerator gas burner	Mechanical inspection of burners	Quarterly	Plant Maintenance Sub-Foreman
2, 3, 4, 5	Main stack damper	Electrical & pneumatic system checks	Quarterly	Operations
4	Scrubber damper	Check	Quarterly	Plant Maintenance Sub-Foreman
1, 2, 3, 5, 9, 11	Center shaft system	Lube and mechanical check	Monthly	Plant Maintenance Sub-Foreman
1, 2, 3, 4, 9, 11	Burner air fan	Oil level and mechanical inspection	Quarterly	Plant Maintenance Sub-Foreman
		Mechanical check – drive belt	Quarterly	Plant Maintenance Sub-Foreman
11	All opacity monitors	Opacity monitor P.M.	Monthly	WSCIT Sub-Foreman

Incineration Process Malfunction Abatement Plan

City of Detroit Wastewater Treatment Plant

Table 3 – Preventative Maintenance Summary – Tasks Common to both Complex I and Complex II

Process Parameter Reference Number	Maintained Equipment	Preventative Maintenance Task	Frequency	Responsible Supervisor (Title)
6, 7, 11	SFE pumps	Electrical inspection	Annually	EWG Sub-Foreman
		Mechanical inspection	Bi – Annually	Plant Maintenance Sub-Foreman
		Operator inspection – Butterfly valve leakage	Quarterly	Operations - HSPO
		Gear drive – Bearing oil change, anchor bolt check	Annually	Plant Maintenance Sub-Foreman
		Bearing housing inspection on strainers	Annually	Plant Maintenance Sub-Foreman
		Electrical inspection	Annually	EWG Sub-Foreman
		Flexible coupling – Lube, operation & alignment check	Bi – Annually	Plant Maintenance Sub-Foreman
		Bearing housing inspection	Bi – Annually	Plant Maintenance Sub-Foreman
2, 3, 5, 9, 11	Weightometer for belt # 15-1	Calibration/Inspection	Monthly	WSCIT Sub-Foreman
	Weightometer for belt # 15-2			
	Weightometer for belt # 15-3			
	Weightometer for belt # 15-4			
	Weightometer for belt # 15-5			
	Weightometer for belt # 15-6			
	Weightometer for belt # X-9			
	Weightometer for belt # P 7 & 8			

Incineration Process Malfunction Abatement Plan

City of Detroit Wastewater Treatment Plant

Table 3 – Preventative Maintenance Summary – Tasks Common to both Complex I and Complex II

Process Parameter Reference Number	Maintained Equipment	Preventative Maintenance Task	Frequency	Responsible Supervisor (Title)
2, 3, 5, 9, 11	Weightometer for belt # P 9 & 10	Calibration/Inspection	Monthly	WSCIT Sub-Foreman
	Weightometer for belt # P 11 & 12			
	Weightometer for belt # P 13 & 14			
	Weightometer for belt # K-1 & 2			
	Weightometer for belt # L-1 & 2			
	Weightometer for belt # Q-7 & 8			
	Weightometer for belt # Q-9 & 10			
	Weightometer for belt # Q-11 & 12			
	Weightometer for belt # Q-13 & 14			
	Weightometer for belt # M-1 & 2			
	Weightometer for belt # N-1 & 2			
1, 11	Incinerator #1 Oxygen Analyzers		Monthly	
	Incinerator #2 Oxygen Analyzers			
	Incinerator #3 Oxygen Analyzers			
	Incinerator #4 Oxygen Analyzers			

Incineration Process Malfunction Abatement Plan

City of Detroit Wastewater Treatment Plant

Table 3 – Preventative Maintenance Summary – Tasks Common to both Complex I and Complex II

Process Parameter Reference Number	Maintained Equipment	Preventative Maintenance Task	Frequency	Responsible Supervisor (Title)
I, II	Incinerator #5 Oxygen Analyzers	Calibration/Inspection	Monthly	WSCIT Sub-Foreman
	Incinerator #6 Oxygen Analyzers			
	Incinerator #7A Oxygen Analyzer			
	Incinerator #7B Oxygen Analyzer			
	Incinerator #8A Oxygen Analyzer			
	Incinerator #8B Oxygen Analyzer			
	Incinerator #9A Oxygen Analyzer			
	Incinerator #9B Oxygen Analyzer			
	Incinerator #10A Oxygen Analyzer			
	Incinerator #10B Oxygen Analyzer			
	Incinerator #11A Oxygen Analyzer			
	Incinerator #11B Oxygen Analyzer			
	Incinerator #12A Oxygen Analyzer			
	Incinerator #12B Oxygen Analyzer			
	Incinerator #13A Oxygen Analyzer			

Incineration Process Malfunction Abatement Plan

City of Detroit Wastewater Treatment Plant

Table 3 – Preventative Maintenance Summary – Tasks Common to both Complex I and Complex II

Process Parameter Reference Number	Maintained Equipment	Preventative Maintenance Task	Frequency	Responsible Supervisor (Title)
1, 11	Incinerator #13B Oxygen Analyzer	Calibration/Inspection	Monthly	WSCIT Sub-Foreman
	Incinerator #14A Oxygen Analyzer			
	Incinerator #14B Oxygen Analyzer			

Incineration Process Malfunction Abatement Plan

City of Detroit Wastewater Treatment Plant

Table 3 – Preventative Maintenance Summary – Tasks Peculiar to Incineration Complex II

Equipment Component Reference Number	Maintained Equipment	Preventative Maintenance Task	Frequency	Responsible Supervisor (Title)
4, 6, 7, 11	Venturi nozzle	Nozzle inspection	Semi-annually	Plant Maintenance Sub-Foreman
1, 2, 3, 4, 8	Auxiliary combustion air fan	Electrical inspection	Annually	EWG Sub-Foreman
		Mechanical check – belt drive	Semi-annually	Plant Maintenance Sub-Foreman

Incineration Process Malfunction Abatement Plan
City of Detroit Wastewater Treatment Plant

Table 4 – Spare Parts Identification

Maintained Equipment	Description of Part	EMPAC or Mfg. Part Number	Quantity
Complex 2 Induced Draft Fan	Adapter, Bearing: 2-5/16" bore	000000000004203	2
	Bearing, Pillow Block: SKF FSAF 517	000000000007966	2
	Bearing, Roller: tapered with race	000000000003456	1
	Coupling, Flexible: Type crowned tooth	000000000000240	1
	Ring, Stabilizing: SKF SR17	000000000013075	1
	Seal, Ring: (grease) ID 2.938" OD 3.565"	000000000008361	4
Incinerator Gas Burners	Actuator, Valve #EA5300000-000013	000000000005499	15
C2 Central Shaft Cooling Air Fan	Belt, V-drive: Dayco P/N 5VX950	000000000002134	2
Incinerator Drive Reducers	Belt, V-drive: Dayco P/N 5VX950	000000000002134	2
	Limiter, Incinerator: Torque 409/3	000000000508320	1
Auxiliary Combustion Air Fan	Belt, V-drive: Goodyear	000000000008796	2
	Damper, Fan: Burner air fan #73-NH	000000000002496	1
Complex 1 Incinerator Piping/Hoses	Adapter, Incinerator	000000000002731	8
	Coupling, Hose: 1 ¼" type D female	000000000009922	8
	Hose, Incinerator	000000000003045	8
	Nozzle, Incinerator	000000000003964	2
	Nozzle, Spray	000000000007157	8

Incineration Process Malfunction Abatement Plan
City of Detroit Wastewater Treatment Plant

Table 4 – Spare Parts Identification

Maintained Equipment	Description of Part	EMPAC or Mfg. Part Number	Quantity
Complex 1 Shaft Cooling Air Fan	Belt, V-drive: Goodyear P/N C-90	000000000006584	3
	Sheave, Std V-belt: C/3 Grooves Type B-2	000000000004562	1
	Sheave, Std V-belt: C Groove 3 Type B2	000000000005484	1
Complex 1 Burner Air Fan	Bearing, Pillow Block: w/col ball	000000000010269	2
	Belt, V-drive: Wedge cog type	000000000009397	6
	Sheave, Std V-belt: 5V-belt grooves 6	000000000008123	1
	Sheave, Std V-belt: 6 groove OD 9"	000000000013117	1
Complex 1 Induced Draft Fan	Adapter, Bearing: 3-15/16" bore	000000000003642	2
	Bearing, Pillow Block: Linkbelt	000000000007546	2
	Bearing, Pillow Block: 3-15/16" bore	000000000012520	2
	Bearing, Roller: Spherical tapered	000000000004311	1
	Coupling, Flexible Fan: End bore 3-15/16"	000000000000524	1
Opacity Monitor	Connector Kit, Multi I/O	000000000508334	1
	Purge Filters	000000000508289	1
	Lens Cleaning Fluid	000000000508336	1

Incineration Process Malfunction Abatement Plan
City of Detroit Wastewater Treatment Plant

Table 4 – Spare Parts Identification

Maintained Equipment	Description of Part	EMPAC or Mfg. Part Number	Quantity
Opacity Monitor	Dessicator (Head)	000000000508637	1
	Dessicator (Retro)	000000000508636	1
	Alignment Tool	000000000508295	1
SFE Pump	O-Ring, 0.139 X-sect/ 3.359 ID	2611895 116	1
	O-Ring, 0.139 X-sect/26.500 ID	2612202 116	1
	Bearing, sleeve 3-11/16 4-3/16	2623773 186	1
	Bearing, sleeve 3-11/16 4-3/16	2623774 186	2
	Bearing, sleeve 3-11/16 4-3/16	2623775 186	3
	Ring, lateral bowl wear (core #262 32HXB)	2624327 118	1
	Core, lateral bowl wear ring 32HXB	2628537 222	1
	Bearing, sleeve 3-15/16 4-7/16	2727112 186	4
	Bearing, shaft 3-15/16 5-7/8	4778535 118	1
Oxygen Analyzer	Assembly, Filter: oxygen analyzer	000000000013438	1
	Board, printed circuit: power supply	000000000005146	1
	Board, printed circuit: indicator	000000000005443	1
	Board, printed circuit: processing	000000000012594	1
	Hexagon bolt M5 x 16 millimeter	000000000012086	12

Incineration Process Malfunction Abatement Plan
City of Detroit Wastewater Treatment Plant

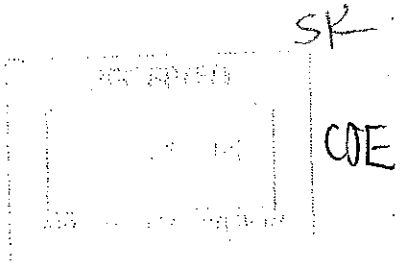
Table 4 – Spare Parts Identification

Maintained Equipment	Description of Part	EMPAC or Mfg. Part Number	Quantity
Oxygen Analyzer	Box, probe mounting	000000000004942	1
	Box, terminal: for detector	000000000005226	1
	Nipple, Teflon: for .25 OD tube	000000000007095	3
	O-ring, oxygen analyzer: for filter	000000000005678	6
	O-ring, seal: C-65	000000000007311	6
	Probe, sample: ZTA 30"	000000000010036	1
	Pump, air: 115VAC	000000000012838	1
	Sensor, oxygen: for zicromatic oxygen	000000000001073	1
	Terminal block, ceramic	000000000012390	1
	Valve, analyzer viton for oxygen	000000000013128	1
	Valve, 3-way knob control stainless	000000000005679	1
Digital Control System	Cable, control: programming/OIC cable	000000000007946	1
	Chassis, monitor: 10 slot	000000000001788	2
	Backlight lamp for LCD	000000000006782	1
	Module, control: modular card slot	000000000000328	4
	Module, control: analog output module	000000000001616	2

Incineration Process Malfunction Abatement Plan
City of Detroit Wastewater Treatment Plant

Table 4 – Spare Parts Identification

Maintained Equipment	Description of Part	EMPAC or Mfg. Part Number	Quantity
Weightometer-Technetics model	Transducer, LVDT	000000000015373	1
Weightometer-Autoweigh Integrator model Micro VI	Board, computer: P/N EC0074	000000000000409	1
	Board, display: supertwist P/N EC0725	000000000006492	1
	Board, power supply	000000000007842	1
	Encoder, weightometer belt speed model	000000000000731	1
	Integrator, weigh-scale: with enclosure	000000000006924	1
	Integrator, weigh-scale	000000000013662	1
	Transducer, load cell	000000000013541	1
Digital Control System	Controller, history: transfer card	000000000013057	2
	Controller, memory: card	000000000004303	4
	Controller, program: programmable	000000000006406	2
	Supply, processor: power	000000000004440	2
	Switch, transfer	000000000008247	1
Temperature Element	Sensor, temperature: and thermowell	000000000507867	20



WARREN
James R. Fouts - Mayor

WASTE WATER TREATMENT PLANT
32360 Warkop
Warren, Michigan 48093
(586) 264-2530

David M. Monette
Division Head

March 18, 2015

Mr. Christopher Ethridge
Southeast Michigan District Supervisor
Michigan Department of Environmental Quality
Air Quality Division
27700 Donald Court
Warren, MI 48092-2793

Re: Warren Waste Water Treatment Plant
Final Control Plan for Compliance with
40 CFR, Part 60, Subpart MMMM and R336.1972

Dear Mr. Ethridge:

The Warren WWTP intends to add control devices to the Multiple Hearth Sewage Sludge Incinerator to achieve compliance with 40CFR, Part 60, Subpart MMMM requirements on or before the March 21, 2016 compliance date.

The five final control plan elements required to indicate Warren's intent to continue operation of our SSI unit, in accordance with 40 CFR, Section 60.5110 are herein listed.

1. **Description of control devices and process changes to comply with the emission limits and other Subpart MMMM requirements.**

   - Preliminary testing indicated that improvements to the SSI are necessary to meet the new HCl limits and, while results showed compliance with particulate, lead, and cadmium limits, technology should be added to assure consistent removal of these parameters as well.
   - Warren plans on designing and installing additional equipment to control HCl, particulates, and solid metals and to allow provisions for adding mercury removal in the future, if required. The technology selected is a venturi style wet scrubber technology called a Venturi Pak.

2. **Types of waste burned at the SSI units.**

   - Only sewage sludge will be burned.

3. Maximum design capacity of your SSI units.

Based on 43 years of operating experience treating WWTP sludge with an average solids content of 17.5%, maximum design capacity is 14,000 wet lbs/hour. Normal daily treatment capacity ranges from 8,500 to 12,000 wet lbs/hour, with the average at just over 9,000 wet lbs/hour.

4. Site specific operating limits under 40 C.F.R. §60.5175.

- This is not applicable for Warren's proposed technology.

5. Signature of the owner or operator of the SSI units.

David Monette, Division Head
Division of Waste Water Treatment

DM/mvc

Certified No. 7013 3020 0000 5396 2254

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YPSILANTI COMMUNITY UTILITIES AUTHORITY

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March 19, 2015

VIA FIRST CLASS MAIL

Mr. Scott Miller
Jackson District Supervisor
Air Quality Division
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
301 E. Louis B. Glick Highway
Jackson, MI 49201-1556

Re: **Ypsilanti Community Utilities Authority – SRN B6237**
40 CFR Part 60 Subpart MMMM Final Control Plan

Dear Mr. Miller:

The following Final Control Plan is being submitted in response to your letter dated January 30, 2015 regarding the development of a Michigan State Plan for Existing Sewage Sludge Incineration Units under 40 CFR Part 60, Subpart MMMM (4M). The Ypsilanti Community Utilities Authority (YCUA) currently operates a fluidized bed sewage sludge incinerator (EU-FBSSI) under Permit to Install 68-02B issued by the Michigan Department of Environmental Quality (MDEQ). As required by the 4M standard, YCUA submitted a Title V Renewable Operating Permit (ROP) application to the MDEQ on February 20, 2015. YCUA's ROP application was under mandatory review by the U.S. Environmental Protection Agency until March 16, 2015. YCUA is required to demonstrate compliance with the 4M standard prior to March 21, 2016. YCUA's Final Control Plan as required by the 4M standard is as follows:

1. Description of control devices and process changes to comply with the emission limits and other Subpart MMMM requirements:

   EU-FBSSI is currently controlled with a venturi scrubber, a multi-stage impingement tray scrubber, a wet electrostatic precipitator, and a granular activated carbon adsorber bed. YCUA notified MDEQ's Air Quality Division of planned enhancements for installing a caustic feed system in a letter dated July 17, 2014. YCUA plans to add a caustic feed system as an enhancement of the existing venturi scrubber to ensure compliance with upcoming sulfur dioxide limits in the 4M standard. The emission guidance promulgated under the 4M standard will limit sulfur dioxide emissions to 15

ppmV from existing fluidized bed incinerators. Presently, EU-FBSSI is not currently regulated for sulfur dioxide emissions, but historical studies have shown emissions are above 15ppmV. A permit exemption analysis under Michigan Administrative Rule 336.1285 has been provided to the MDEQ for installation of the caustic feed system. YCUA received notification from MDEQ in a letter dated July 29, 2014 that it is in support of our analysis. YCUA anticipates construction of the caustic feed system will begin in the next 30-60 days.

At this time, YCUA does not plan to install any further control devices or make process changes to comply with the emission limits established by the 4M standard. Results of previous stack testing indicates YCUA will be in compliance with the 4M emission limits for exiting fluidized bed incinerators without any further modifications.

2. Types of waste burned at the SSI units (solely sewage or other): EU-FBSSI only incinerates dewatered sewage sludge generated at the YCUA Wastewater Treatment Plant.

3. Maximum design capacity of your SSI Units: The design capacity of EU-FBSSI is 48 million Btu per hour, which is the thermal equivalent of 6,300 dry pounds per hour assuming 75.6 % volatile solids, 25.5% total solids and a high heating value of 10,000 Btu/lb. of volatile solids.

4. Site specific operating limits under 40 CFR Part 60.5175: YCUA intends to establish site specific operating limits using the performance test required by 40 CFR Part 60.8. Operating limits will be established for following parameters: combustion chamber operating temperature; pressure drop across each scrubber; scrubber liquid flow rate; scrubber liquid pH; secondary voltage and amperage of electrostatic precipitator collection plates; and effluent water flow rate at the outlet of the electrostatic precipitator.

   YCUA plans to petition the U.S. Environmental Protection Agency as required by 40 CFR Part 60.5175 to establish specific operating parameters, operating limits, and averaging periods for the carbon adsorption system.

5. Signature of the owner or operator of the SSI units:

Jeff Castro
Director

March 19, 2015

If you have any questions or concerns regarding this information, please contact me by phone at (734) 484-4600 ext. 121 or by email at lblackburn@ycua.org.

Sincerely,

LUTHER BLACKBURN, Director of Wastewater Operations/Compliance
Ypsilanti Community Utilities Authority

Cc: Mr. Glen Erickson, MDEQ
Ms. Valerie Guenther, TetraTech
Mr. Peter Daukss, TetraTech
Mr. Jeff Castro, YCUA
Mr. Kevin Dupuis, YCUA
Mr. Scott Westover, YCUA
Mr. Alan Schock, YCUA
YCUA File